IMPROVING PORTLAND'S LOCAL INFRASTRUCTURE:

RECOMMENDATIONS FOR THE LOCAL IMPROVEMENT DISTRICT PROCESS

COUNCIL DRAFT
November 1, 2000

The participation of Portland residents and property owners has been invaluable in forming the recommendations contained within this report. We areespecially grateful to the following participants for taking the time to help City staff reshape the LID process and, we hope, our neighborhoods:

Kara Adams
Andrew Aebi
Karen Armitage
David Battilega
Joe Bec
Linda Bauer
Robert Beeme
Joe & Mary Bernhard
Theresa Bisqual
Amanda Black
Maurice Blackman
Chris Blatner
Sylvia Bogert
Glenn Bridger
Ken Bruneau
Sharon Canaday
Larry Caton
Bill Chapman
Christine Charneski
Paul Corah
Steven & Phaedra Culliton
Chris Dearth
Jim & Sandy Donahue
Bill Ek
Sally Elgin
Matt Emlen
Vernon Franson
Dorothy Gage
Leonard Gard
Janice Goo
David Graham
Terry Griffiths
Adam Grimshaw
Katherine & Tom Grinnell
John Guineau
Doreen Hamilton
Dan Hanby
Allan Harwood
Jim Hearn
Larry Hudetz
Lynn Jacobs
Steven & Lara James
Steve Jensen
Tom Johnson
Dave & Dixie Johnston
Ken Kahn
Yeu & May Kue
John Lebens
Char Lentz
Phy & Brenda Lieu
Wayne Lincoln
Melinda Littlehales
Bob Lockett
Adrienne Wolf-Lockett
Annette Mathias
Ben Maynard
Bonny McKnight
Tom Miller
Cynthia Morey
Deloris Moss
Dave Nadal
L Nosov
Eed Nuljon
Greg Olson
Steve Olson
Rose Marie Opp
Scott Parker
Jean Passell
Daniel Petersen
Roberta Pollack
Alesia Reese
Pat Reeve
Denis & Marguerite Reilly
Mark Reynolds
Martha Richards
Jim Ruppa
Valerie Runyan
Mel Schaff
Bill Scherland
Michael Schiano
Michael Schreova
Arlen Sheldrake
Gil & Sue Shoemaker
Mary Sorensen
Scott Stephens
Carol Stone
Carol Sturges
Greg Thiel
Susan Titus
Dick Tooze
Carl Urban
Elizabeth Ussher Groff
Mike Van Loo
Bob Vial
Pat Weber
Darren & Sue Wiederhold
Jerry Wilkins
Rev. Ronald L Williams
Jim Worthington
Steven Yett
Darlyne Yocum
Herman Zink

COUNCIL DRAFT 11/01/00

IMPROVING PORTLAND'S LOCAL INFRASTRUCTURE:

RECOMMENDATIONS FOR THE LOCAL IMPROVEMENT DISTRICT PROCESS

November 1, 2000

City of Portland, Oregon
Office of Transportation
Bureau of Environmental Services

CONTENTS

SUMMARY

The City of Portland has over 600 miles of substandard streets and storm sewer systems. The lack of sufficient or appropriate infrastructure in our neighborhoods detracts from the livability that many Portland residents enjoy.

One of the primary ways that local infrastructure is improved in the City of Portland is through the Local Improvement District (LID). Because the City places responsibility for substandard or unimproved streets on the abutting property owners until maintenance responsibility for those streets is accepted by the City, property owners must typically pay for streets to be improved to acceptable standards. LIDs allow property owners along a substandard street to join together and pay for street improvements, and to finance those improvements over a period of up to 20 years.

In November 1998, the Portland City Council established the position of Local Improvement District (LID) Administrator in the Office of Transportation and directed the Administrator to undertake an evaluation of the LID process. This action was taken, in part, due to the failure of two street improvement LIDs earlier in 1998 and the ongoing presence of a number of issues related to LIDs in general.

The effort that was undertaken to reevaluate the LID process relied heavily on the input of City of Portland property owners and residents. Over the course of 18 months, City staff held over 50 public meeting at various locations around the City and intensively involved over 200 property owners and residents in the LID review process.

ISSUES

From the outset, a primary goal of the process was to evaluate LIDs from the perspective of a property owner considering improvements. In this way, staff was able to identify issues that were important to property owners, and to suggest modifications to the LID process that would encourage greater support for LIDs.

Through this process, five primary issues were identified that are critical for property owners as they decide whether or not to support an LID. While there are certainly a number of other factors that also may be important, these five factors surface time and again in discussions on the subject and, if addressed, will lead to a substantially greater rate of success. The five factors are:

1. Cost to Property Owner
Costs for a 5,000 square foot lot vary widely, but the average cost in 2000 is $12,500. This cost, for most property owners, is seen as excessive. Above any other factor, the final cost to the property owner is the most important factor for those considering whether to support a LID.

2. Guaranteed/Not-to-exceed Cost Estimates
Today, costs are not typically guaranteed when property owners are asked to sign a petition supporting an LID. In essence, property owners feel they are being asked to sign a blank check, since their final assessment will be based on the actual project costs and not the cost estimate their petition is based upon.

3. Fairness/Equity of Proposal
Property owners must be assured that the LID proposal is fair and equitable. This means, among others, that the boundaries of the district must include all properties that benefit, that costs must be spread appropriately, that development issues are addressed, and that the property owner share of costs is a manageable and fair burden.

4. Effective two-way communication
Without effective communication between City staff involved in the LID and property owners interested in the LID, there is little chance for success of the LID proposal. Both parties must be willing to openly discuss LID issues, and the City must step up and deliver relevant information in a timely and forthright manner.

5. Design reflective of neighborhood, property owner, and City desires
There is an overwhelming perception by property owners that the City approaches street design projects with a cookie-cutter approach, with no flexibility to deal with existing conditions. A more open design process that allows property owners, City staff, and neighborhood residents to explore and weigh design alternatives will be beneficial to gaining support and endorsement of LID proposals.

RECOMMENDATIONS - OUTLINE

The five primary issues defined above were used as a starting point for generating recommendations for improving the LID process. While each issue is important to successfully addressing the problems surrounding LIDs, the cost of the project to property owners is the one that drives most property owners' decisions on LIDs.

As recommendations were being generated for the LID process, it quickly became apparent that modifying the process or providing more design flexibility would not provide the cost relief to move most property owners to support the formation of a LID. While these recommendations are ultimately critical to the success of the LID program, it also became necessary to look at the amount of financial support that the City provides to local street and storm sewer LIDs.

These two areas are reflected in two separate chapters of this report. Chapter 5 outlines changes to the LID process, defines roles and

responsibilities, and explores design alternatives. This chapter also contains recommendations on improving the waiver system and changes to substandard and unimproved street maintenance policies, and outlines an approach to planning for local infrastructure improvements. These recommendations are essentially cost neutral to the City's budget, but result in cost savings for property owners.

By contrast, Chapter 6 explores the possibilities for providing public funding support for local street and stormwater LIDs. A few different scenarios are outlined, with the recommended scenario calling for a 50% reduction in cost to property owners through a $2 million annual investment intended to generate approximately 2.2 miles of street and storm sewer improvements.

A summary of the report recommendations are outlined below, along with chapter references.

RECOMMENDATIONS - LID PROCESS

5.1.1 - Roles and Responsibilities

- *Creation of LID Administrator position* - Position would be housed in the Project Management Division in the Office of Transportation. The LID Administrator would be responsible for all City LID processes as the central point of contact for property owners, citizens and City staff.

- All responsibility for the LID process, except for the management of the LID construction fund and the City's Lien Docket (Auditor's Office), would be transferred to the LID Administrator in the Office of Transportation. The LID Administrator would work with Sponsoring Bureaus to ensure project documentation is correct, proper notification is provided, ordinances and resolutions are filed, and all other steps of the LID process are followed.

5.1.2 - 5.1.8 LID process

Proactive City Involvement (5.1.2)
- City will respond more proactively to LID requests
- City will set up program to work with neighborhoods to develop plans/programs for improving local streets/sewers (target area/local infrastructure plan)

Community Involvement - Pre-LID process (5.1.3)
- Intensive property owner involvement in street design, LID boundaries, cost estimates
- Support for project/proposal demonstrated through signing of petitions

Early Public Hearing (5.1.4)
- City Council Hearing will follow immediately upon support being attained
- Process would be same as for Time and Manner (notification, remonstrances, etc.)

Design (5.1.5)
- Project Definition by City Council will focus design efforts
- Performance Standards: Reduce engineering costs from 33% to 25%

5.2 LID Financing

- Low Income deferrals - income test, interest rate subsidy, no time limit, renew every 5 years - Requires public subsidy/funding
- Large Lot/Development deferrals - large lot/underdeveloped test, 5 years maximum, no subsidy - Can be structured into city financing

5.3 Assessment Methodology

- Outline of a variety of assessment methods and modifications is provided
- Involve property owners in definition of appropriate methods

5.4 Design Flexibility

Involve property owners in defining the scope of improvements during the pre-LID phase. Alternatives that could be explored in the design process include:

- Roadway Drainage - crown, valley, shed sections
- Stormwater Facilities - underground system (pipe/sump), ditches, swales
- Curbs - Standard, partial, no curbs
- Sidewalks - two, one, none
- Development of right-of-way as ped/bike only route
- Pervious Paving/Green Street Alternatives - Identify test case project to be constructed within 18 months and evaluated for effectiveness

5.6 Waivers

- Continue to use and accept waivers
- Require strong disclosure of waiver through property purchase process
- Provide ongoing outreach and education on waivers to real estate professionals
- Ensure full involvement of waivered properties in Pre-LID process
- Provide early Council hearing on LIDs involving waivered properties

5.7 Maintenance of Substandard Streets

Allow property owners to responsibly maintain substandard/unimproved streets by relaxing code restrictions on work in the right-of-way.

5.8 Local Infrastructure Planning

- Propose planning process for BES, PDOT, and neighborhoods to adequately identify and fund local improvements.
- Target specific neighborhoods each year for planning process; include back end funding strategy for implementation

RECOMMENDATIONS - FUNDING

To reinforce the funding recommendations, a set of principles was generated explaining why the City should be investing in local infrastructure:

- The Portland community has made a decision to accommodate the Urban Growth Boundary and accept more development in existing neighborhoods.
- Many recently enacted design requirements provide broad community benefit.
- Improving stream health and water quality is an important component of street and stormwater improvements.
- Investing in local infrastructure ensures healthy neighborhoods.

Three funding scenarios are presented for consideration as part of an approach to effectively providing local infrastructure:

<u>Minimum Scenario</u>

- Provide subsidy to 1995 levels (20-30%)
- Property owner responsible for 70-80% of project costs
- Annual Funding Required: $350,000
- Annual Rate of Progress: .5 miles/year
- Time to Complete Network: 140 years

<u>Recommended Scenario</u>

- Provide $2,000,000 annual subsidy
- Reduce property owner costs 50%
- LIDs driven by property owners
- Anticipated Rate of Progress: 2.2 miles/year
- Time to Completion of Network: 100 years

<u>Optimum Scenario</u>

- Provide $13,450,000 annual subsidy
- Reduce property owner costs 50%
- LIDs driven by City
- Anticipated Rate of Progress: 16.2 miles/year
- Time to Completion of Network: 30 years

1.0 INTRODUCTION

"Today, there are about 131,000 more people living in the tri-county area than there were just five years ago. By 2017, Metro projects that an additional 497,000 people will live here. These people are not new emigrants, many are our own children. This expansion in our population will place considerable strain on the urban growth boundary, as well as the urban infrastructure and community facilities which serve our citizens and commerce."

-Vic Rhodes, Director
Portland Office of Transportation
1998

The City of Portland faces a tremendous challenge at the beginning of the 21st Century as it strives to ensure the livability of its neighborhoods. As the City expanded its boundaries through annexation in the last half of the 1900's, it also inherited hundreds of miles of substandard street, storm, and sanitary sewer infrastructure. Most of this inventory is found on local residential streets where it directly affects the adjacent property owners, residents and businesses.

In order to improve local infrastructure, the City Code supports a policy whereby benefiting properties are responsible for funding local infrastructure improvements. The majority of improvements have been made through the development process, as property owners are often required to construct street and/or sewer improvements at the time of development. Local Improvement Districts (LIDs) are a significant tool available to property owners interested in making local infrastructure improvements, although it has not yielded significant results in recent years. The lack of property owner interest in this tool and the failure of recent LIDs has led to a reevaluation of the use of LIDs in the City of Portland.

In November, 1998, City Council passed a resolution directing the City of Portland's Office of Transportation and Bureau of Environmental Services to jointly fund a redesign of the LID process to be run by the LID Administrator, a newly established position in the Office of Transportation. This resolution followed the demise of two LIDs in SW Portland - SW Evans/19th, and SW Texas/26th. Both LIDs exhibited a number of issues that had plagued the process for years, and Council's denial of these LIDs left little other action than to seriously reconsider the City's LID process.

1.1 THE REDESIGN PROCESS

The foundation for any successful planning effort is a sound public outreach process integrated fully with meaningful information, analysis, and ideas. Content and process must be inseparable. To achieve this level of integration, staff and community members laid out a work plan and public process for the Local Improvement District Redesign Process. The goal of this process was to empower Portland residents to explore issues, generate ideas, and develop a successful model for the City's improved LID process.

More specifically, we hoped to achieve the following objectives through the implementation of the LID Redesign work plan:

- The process would be inclusive, allowing for maximum engagement of those interested.
- The process would be open, with information available to everyone interested in the project.
- Ideas would flow from the community.

Implementing this process required a variety of means for working with property owners, staff, and other interested parties. When City Council directed that the redesign process be undertaken, they also set up one of the avenues for discussion. A Steering Committee was formed, composed of elected officials, City staff and community members:

- City Commissioner Charlie Hales
- City Commissioner Dan Saltzman
- City Auditor Gary Blackmer
- City Engineer Brant Williams
- BES Director Dean Marriott
- Interim Planning Director Deborah Stein
- Southwest Portland resident Mark Sieber
- East Portland resident Jim Worthington

While the Steering Committee would provide a good cross section of views and direct access to the responsible elected officials, alone it would not suffice to be the guiding committee for the process. Thought was given about how to expand the amount of public input on the project, and ultimately a much more extensive and informal process was designed.

Four "working groups" were created in different areas of the city - Southwest, Inner Southeast, Outer East, and Central Northeast/North. These groups met monthly to discuss issues related to LIDs and local infrastructure, and provided key insight on specific neighborhood issues and property owner concerns. The primary goal of these groups was to involve as many participants in the process as were interested, thereby expanding the number of in-depth participation throughout the process.

Working group members were invited to the process through the mailing of an informational brochure in March, 2000. The brochure was sent out to around 12,500 property owners in the City of Portland, providing basic information on LIDs, issues that the City was struggling with on LIDs, and ways that property owners could choose to involve themselves. Options for involvement included monthly working group meetings, open houses, focus groups, or a general project mailing list. A reply card was also included with the brochure, allowing property owners to return comments on local streets and sewers and the LID process.

Over the course of the process, the working groups were able to greatly expand our understanding of neighborhood and property owner views on local streets and sewers. There were a number of ways that these groups helped to add value to the process. First, these meetings gave property owners a chance to discuss local infrastructure issues at a more detailed level then would have been possible through a

public workshop or open house. Second, the number of actively involved citizens in this process was at least twenty times that which would have been involved on a city-wide citizens committee.

Another area where these groups added value was in describing area-specific issues throughout the city, helping staff understand the unique issues and opportunities present in the city's diverse neighborhoods. Last, these groups helped to provide a forum where property owners themselves could hear the range of issues present and begin to understand the amount of work needed to bridge many of the gaps present in the community.

For community members not interested in a monthly commitment, there were also opportunities to attend open houses and to receive information on the project. A series of focus groups are scheduled to occur in the Fall of 2000 in order to test and refine the LID recommendations and funding models for local infrastructure.

1.2 ACKNOWLEDGEMENTS

It would be impossible to acknowledge everyone who made significant contributions and dedicated a tremendous amount of time to the LID Redesign Process. The results of this process would have been impossible to achieve without the involvement every community or staff member who took even an hour out of their schedule to lend a hand. However, a few people deserve particular mention for the significant support they gave to the project. They include:

Marc Sieber and **Jim Worthington**, whose input to the LID Steering Committee was invaluable.

Andrew Aebi, Chair of the Southwest Working Group, provided a calm voice and creative ideas, greatly enhancing the final product recorded here.

Leonard Gard, SWNI Land Use Specialist, arranged for meeting spaces, generated meeting notes, and, most importantly, served as a clearinghouse for information for Southwest Portland residents.

All property owners and residents who took time out to attend working group or open house meetings, call staff, write in responses and, most importantly, talk to their neighbors about LID issues.

City Auditor **Gary Blackmer** and his staff in the Assessments and Liens Division - **Frank Dufay, Dan Schmidt, Janice Hammond** and the rest of the division - for their willingness to rebuild from the ground up in determining what would make the best LID process.

City staff who served on technical committees and met with staff individually, generating creative ideas and helping the project team and community evaluate and understand both the existing process and potential ideas.

"The LID process currently used by the City is encumbered with high costs, complex assessment methods, unwieldy procedures and lengthy time frames. Such factors are large contributors to the increasing undesirableness of the program to City property owners and residents."

- Ralph Tashima, Senior Engineer
Recommendations to Revise the Local Improvement District Processfor Street Improvements, *1977*

"Those who cannot remember the past are condemned to repeat it."

- George Santayana
The Life of Reason, *Vol. I, 1905*

2.0 HISTORY OF LOCAL INFRASTRUCTURE IMPROVEMENT IN PORTLAND

Looking back from the beginning of the 21st Century, it is difficult to envision the streets of Downtown Portland as muddy canyons offering little comfortable passage to vehicles and pedestrians. But, like any other American city, Portland grew into its present condition over time, gradually transforming as times demanded and technology changed.

The paved streets we see today in the oldest parts of Portland have gone through a number of changes over the past 150 years. In the early days of the city, street paving was not of primary importance. Instead, setting the streets to appropriate grade was the main challenge. In the book "History of Portland Oregon," edited by H.W. Scott and published in 1890, the grading of streets was described:

> Some sort of improvement of streets early began to be imperative. Digging stumps was the first, and the millionaire now lives who worked out road taxes by removing the roots of a fir tree from the highway in front of his store. The surface was also very irregular, from gulches, knolls, hummocks formed by the roots of fallen trees, and by the hollows or pits left by the lifting of soil beneath. All these inequalities were to be remedied, and the work was early undertaken. The grading of the streets was heavy and expensive.

Following the initial grading of streets, attention was turned to some sort of surfacing. Scott describes a number of different materials and methods used in Portland's early days:

> During the soft months the mellow brown soil was quickly cut into mire, and trodden into mortar. Planks were first used. In about 1858 a macadam road was built out to the Red House, some three miles south, the first of its kind in the State. In 1865 the Nicholson pavement was laid on Front and First streets, and for a number of years was in great favor. It soon began to fail, however, due to either improper construction, or to the extremes of moisture and dryness of our seasons, and quickly fell into condemnation....
>
> As this pavement gave way, the Belgian block was substituted, and now prevails on Front, First and Second streets, from G street on the north, to Jefferson street (with some exception on Second street) on the south... Owing to the non-uniformity of the ground beneath, as to firmness, the old sections are becoming warped, with hollows and bunches. The constant lifting of the blocks to repair sewer and water pipes, or for street railway purposes, has also worked toward an uneven surface.

Accommodating pedestrians was also an important component of the early construction of streets in Portland, as Scott describes:

> Cross-walks of the streets are of plank or slabs of stone, the latter a foot or more in breadth by some four or five in length, laid treble...
>
> The sidewalks in the business portion of the city are of stone squares, quarried from the hills, or, now almost universally, of the artificial stone, made from sand. This is handsome and durable... The manufactured stone is used extensively around the blocks occupied by fine residences, but for the most part the walks are of plank.

Scott even talks about how an eye to appropriate street design was given in the formative days of Portland's streets:

> Quite frequently they (the sidewalks) are made too broad for beauty, especially on the upper streets, but the most are not thus cumbrous, and a space for turf is left between the foot-walk and the pavement, giving relief from the glare and the hardness of aspect which is painful to the eye and offensive to the taste.

While the preceding paragraphs give some insight on street design in the last half of the 1800's in Portland, the real change towards a "modern" roadway system came with the emergence of the automobile as an important part of the City's transportation. The demand for smoothly paved roadways led to roadways which are much more recognizable to us today: asphalt and concrete.

While the vast majority of Portland's improved streets today are asphalt, early on in the development of the City's streets for automobile use, Hassom concrete was very heavily used. This concrete, which can still be found on a number of residential streets in inner NE and SE Portland, contains chunks of basalt, some as large as four inches across. Compared with concrete used today, this aggregate is very large, but it also resulted in a very strong, durable street. In fact, there are a surprising number of streets that still have the original Hassom concrete base beneath the more modern asphalt overlay - SE Capitol Highway and SE Hawthorne Boulevard are two examples.

As much as street design has changed over the years, one area related to local infrastructure in Portland has remained constant - the involvement in property owners in the funding of local streets. While there has certainly been a range in how much property owners have paid to improve their streets, the City Charter has

always made it clear that improving local streets required the financial involvement of adjacent property owners.

The first Charter, which established the City of Portland in 1851, contained language related to street improvements and what we now call the Local Improvement District process. Scott describes it in this way:

> Among provisions likely to be amended was that... to allow a protest of the owners of one-third of the property on a street to stop improvements ordered thereupon, while two-thirds of the expense of all improvements of streets was to be borne by the property adjacent...

Scott goes on to describe amendments to the Charter that altered the street improvement process:

> In 1862 an amendment was added, relating principally to street improvements, providing that half the expense of such improvements should be borne by the owners of adjacent property, and that a protest of the owners of two-thirds of the property must be obtained to arrest any street work ordered by the council.

This amendment carried through into the Charter of 1872, at which point the responsibility for street improvements fell under a "Streets Commissioner."

Even though the participation of property owners in the funding of street improvements has remained a constant over time, the amount that property owners have paid to improve streets has varied. Even within the first 20 years of the City, there was not a consistent percentage that property owners paid as their share fell from two thirds to one half of the cost. As it stands today, the Charter does not make any statement or recommendation about the percentage of costs to be borne by property owners, implying that they are responsible for as much as 100% of the costs.

Even today, there is a wide range in what property owners pay for street improvements. In some areas of the City, little to no public funding is available to assist property owners with the cost of improvements. In other areas, most notably low income neighborhoods, the City may pay 70% to 100% of the improvement costs.

The lack of any clear formula in state law or the City Charter and Code have led to a wide range of funding possibilities for local streets. This is consistent, it should be noted, with past programs. During the Depression in the 1930's, the federal government stepped in and improved streets through the Works Progress Administration (WPA). The WPA was essentially a jobs program that focused on public works projects as a means for providing employment. As in some Portland neighborhoods today, many streets in the City were paid for at or near a 100% level by the federal government, while at the same time other street improvements were being made in the City where property owners or developers were covering the costs of the projects.

The lack of consistency should not necessarily be viewed in a harsh light. In effect, public resources have been used in areas where they could do the most good, or where there was a larger mission to be accomplished. However, it is illuminating to the degree that it falsifies a long-standing myth among citizens and government officials alike - that all of Portland's local streets were paid for by the abutting property owners.

The implication of this myth was that property owners paid almost entirely for their street, a proposition that is nowhere near the truth. It is much more accurate, and also more relevant to the problems we face today, to state that property owners have almost always helped pay for at least a portion of the costs for improving their streets.

3.0 MISSION STATEMENT AND GOALS

After spending an extensive amount of time interviewing property owners and staff and understanding the primary issues that underlie the LID process, the Steering Committee and Working Groups formed and refined the project mission and goals for the LID Redesign Process.

The mission statement for this process raised some questions, since it talks about much more than improving the LID process. In fact, the mission statement suggests that a great deal of attention must be given to the larger issue of providing local infrastructure for our neighborhoods, implying that a serious commitment must be made by the City in order to achieve the desired end result.

3.1 MISSION STATEMENT

Developing Portland's local infrastructure is critical to maintaining our City's livability. Through careful planning, design, and investment, the City will succeed in completing the local infrastructure network. Preferably, this work would be accomplished within the next 30 years, requiring the improvement of approximately 16 miles of street per year. The resulting improvements to the transportation system, water quality, and natural resources will help provide the livability that Portland's citizens cherish.

As part of improving our City's infrastructure, Local Improvement Districts are important tools. The formation of these districts should be clear, efficient, cost effective, affordable, and above all, fair to those participating. Participants should have a clear voice in determining the scope of improvements, and the resulting improvements must be high quality - durable, functional, and attractive.

3.2 LID REDESIGN PROCESS GOALS

Financing

- Research and establish creative financing mechanisms that relieve burden on both taxpayers and property owners.
- Determine appropriate assessment methodologies and formulas as a means for fairly assessing property owners.
- Provide safety valves for property owners in difficult financial situations.
- Establish certainty in costs for property owners.
- Finance strategies should reflect the priorities established within local infrastructure plans.
- Recommend improved financing strategies or plans to City Council for approval.

Design and Maintenance Standards

- Establish a more efficient, cost effective design process, cutting the average overhead rate to a level comparable with private sector projects or exceptional local jurisdictions.
- Provide a set of alternative design standards that can be predictably applied.
- Design standards should reflect neighborhood values.
- Enable the establishment of local infrastructure in an incremental fashion.
- Provide greater flexibility to property owners for maintaining local streets.
- Evaluate design standards and their effect on street and stormwater facility construction and cost.

LID Process

- City staff should proactively engage neighborhoods and property owners in the consideration of local street improvements.
- Create a system that is clear, understandable and easy to use for citizens and property owners interested in initiating LIDs.
- Enable citizens to engage in a fair and open process of local governance.
- Establish a more efficient, cost effective LID process, cutting the average overhead to a level comparable with private sector projects or exceptional local jurisdictions.
- Eliminate friction between City bureaus and departments.
- Implement minor policy improvements on an ongoing basis.
- Recommend major policy and City Code or Charter amendments to City Council for approval.

Funding

- Determine adequate funding levels for various buildout scenarios.
- Determine potential funding sources and geographic applicability for subsidizing LIDs.
- Recommend one or more funding strategies to City Council for approval.

Local Infrastructure Planning

- Determine city-wide deficiencies and corrective costs.
- Scope of improvements should be defined at the neighborhood level and should reflect neighborhood values.
- Provide a framework for understanding opportunities and constraints unique to various parts of the City.
- Working collaboratively with neighborhoods, create and implement a work program for establishing a comprehensive local infrastructure plan to help guide local improvements, including street, stormwater, sanitary sewer, and water.
- Achieve economy of scale cost savings through careful coordination of improvements at a neighborhood and/or watershed level.

4.0 INVENTORY AND ANALYSIS

Prior to generating any ideas or recommendations for the LID process, a great amount of time was spent gathering and analyzing information related to the process. The scope of this inventory was fairly broad, ranging from a detailed breakdown of the LID process to an inventory of the type and condition of local streets in the City of Portland.

The inventory work was performed on this project to inform staff and participants and in some cases was the result of what was heard from participants in the process. In the end, everyone involved in the project was able to work from a common, broad base of knowledge, allowing an informed analysis of potential recommendations as well as an understanding of where the weaknesses lie within the LID tool.

4.1 WHAT WE HEARD

Perhaps the most critical piece of inventory that was performed on this project was listening to community members and property owners talk about their feelings and experiences with the LID process. Over the course of the last 18 months, staff have had the opportunity to contact and receive information from over 500 interested citizens through a variety of means: one-on-one interviews/conversations, comment cards, open houses, and other methods. Through the Working Group process alone, over 200 participants were able to dive into LID issues at a higher level of detail than would normally occur on a planning project.

The result of this outreach process was the effective mining of the community for what the primary issues are in their eyes. Through the process of understanding these issues and searching for ways to address them, the final

recommendations reflect what is important to the community and, most importantly to property owners.

In general, the following issues were the most common themes heard throughout the process. A detailed listing of these issues can be found in Appendix A.

- *High cost to property owners* - This is far and away the most important property owner issue related to LIDs. While other issues certainly affect whether property owners support an LID or not, cost is the prime determinant of whether an LID will proceed. Also, cost is often an element of other issues that arise.

- *Desire for design flexibility* - There is a strong feeling in the community that there is little opportunity for flexibility in street design, that the City's design standards are too costly, and that there is little or no chance for input in determining the design of a street. Design Standards are further explored in Chapters 4.5 and 5.4.

- *Limited maintenance options for property owners* - Because property owners are responsible for maintaining unimproved or substandard streets, there is a high level of frustration over not being allowed to effectively maintain these streets. This issue is defined further in Chapter 5.7.

- *Lack of meaningful involvement in design and LID process* - Many property owners feel that their views are not heeded or incorporated into the City's process. Improvements to this process are laid out in Chapter 5.1.

- *Lack of awareness of and input from waivered properties* - Property owners with waivers are often unaware of the presence and/or significance of waivers, and feel disenfranchised from the LID process. See Chapters 4.6 and 5.6.

- *Differences between City neighborhoods* - There are a variety of views from the community, depending on which neighborhood you are talking to. Differences should be acknowledged and incorporated into how the City approaches LIDs in neighborhoods.

- *No evident services returned on taxes and fees paid to the City* - Simply put, many residents look out their front door and are frustrated that property taxes, gas taxes, and sewer fees they pay do not help with their street.

- *Increased development pressures in neighborhoods* - The pace of growth in the Portland area has led to increased development in neighborhoods, further straining substandard streets and sometimes involving property owners in LIDs resulting from development requirements.

4.2 COST OF LID PROJECTS

As mentioned above, the primary concern of property owners contemplating a LID is the cost of the improvement. One of the most important areas researched as part of the redesign process involved an analysis of LID costs, particularly over the last decade.

4.2.1 Cost of Street Improvements, 1990 - 1997

Over the first eight years of the 1990's approximately 6.4 miles of street were improved through the LID process. Of those, half, or 3.2 miles, were improved utilizing Community Development Block Grants through the Bureau of Housing and Community Development (HCD). HCD funded street improvements in low income neighborhoods as part of a larger strategy for improving these areas and providing affordable housing.

The HCD program subsidized street improvements 70% or greater; if property owners earned below 50% of the Median Family Income for the Portland area, they were eligible to have 100% of their assessments paid by HCD.

Because of the substantial level of subsidy involved in the HCD program, staff decided to focus on the other 3.2 miles of street improved by LIDs during this eight year period.

For the 3.2 miles of non-HCD LIDs, there was still a significant public subsidy that was put into these projects. The average subsidy for these LIDs amounted to 29% of the project cost, with the remaining 71% assessed to property owners.

Today, the average cost for the property owner of a 5000 square foot lot is $12,500, or $2.50 per square foot. For HCD projects, the 70% subsidy results in a typical assessment for a 5000 square foot lot of $3,750.

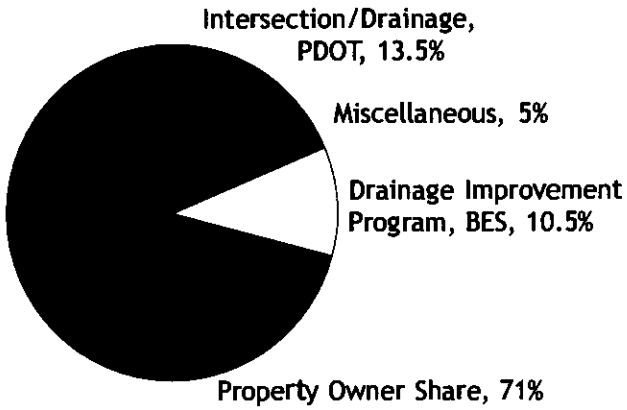


Figure 4.1 - Funding Mix, 1990 - 1997

The public subsidy portion of these projects came from three primary sources (Figure 4.1):

13.5 % - Intersection and Drainage Subsidy, PDOT - This subsidy paid for catch basins, inlet leads, intersection paving and corners built as part of an LID.

10.5% - Drainage Improvement Program (DIP), BES - DIP funds helped to pay for additional stormwater capacity built into the storm sewer improvements in order to accommodate future storm flows.

5% - Other subsidies, PDOT and BES - Some dollars were often provided in the event of significant cost overruns or miscellaneous improvements that were not deemed to be assessable to property owners (e.g., sump replacement).

It is worth noting today that criteria for DIP funding through BES have been tightened and would result in lower funding on most LIDs. Also, although the Intersection and Drainage Subsidy is still in place, there has never been a budgeted item to cover the 5% miscellaneous costs described above. It would be fair to say that the currently budgeted subsidies for LIDs would result in an average subsidy of approximately 10 - 15%.

4.2.2 Engineering and Administration Costs

An important component of the final costs passed on to property owners is the staff time spent on designing and administering the LID. Using the same 8 year period from 1990 - 1997, staff analyzed how much was spent on these costs and generated an average percentage for engineering and administration.

The result - an average of 33% - seemed to be in keeping with engineering costs on other recent projects, including non-LIDs. However, there are a few points worth noting.

First, 33% is at the high end of a range for average overhead costs on design and construction projects. This is primarily related to two factors - the cost of the LID process itself, and the relatively small total cost of the projects. With the average cost for these LIDs running at $290,000 from 1990 - 1997, it was more difficult to achieve cost savings that are often possible on larger projects.

A good example of how larger projects can affect the amount of money spent on engineering can be found in St. Paul, MN. City officials there have implemented a program where approximately 15 miles of street are reconstructed each year at a cost of around $12 million. 19% of the total cost (versus the City of Portland's 33%) is for engineering and administration.

Another point is that 33% does not capture all of the overhead costs associated with LIDs. In fact, many costs borne by the Auditor's Office could not be passed on due to limits in City Code on how much the Auditor can pass on in an LID (there are no similar limits in code for engineering costs). Because City Code limits the amount the Auditor can bill on a project based on a percentage of the overall cost of an LID, smaller projects do not allow for full cost recovery. In essence, these projects are subsidized by the Auditor.

Sometimes higher engineering costs result from working in difficult situations. For example, designing and managing construction projects in the West Hills can be far more expensive than a project in East Portland given the terrain that one must work with. As a result, it can be expected that the more difficult the terrain or design challenge, the higher the engineering cost will be.

One last point related to engineering and administration costs on LIDs is that Bureau overhead charges are often passed on to property owners. These charges can run as high as 33% above and beyond an employee's base salary and benefits, and usually help a bureau pay for things like building rent, utlilities, and bureau administration. Given the nexus between final assessment and benefit to property that must exist to make an LID valid, it is worth exploring whether recovering these overhead costs from property owners is an appropriate policy.

One other cost that is associated with the administration of the LID program is related to the Pre-LID process. The City has provided approximately $40,000 annually to prepare petition packages and repond to property owner requests for street improvements. In terms of success rates, there may be two or three LIDs successfully initiated for every ten petition packages prepared. This means that $15,000 to 20,000 has been required in LID development dollars for each successful LID.

4.2.3 Cost Analysis of Current Design Standards

In order to understand the cost of specific design components as part of a total street design, staff generated costs for each of the design elements identified in 4.5, Existing Design Standards. The costs presented here assume a 26 foot wide street with sidewalks on both sides, street trees, curbs, stormwater treatment and approximately 100 feet of storm sewer line per block (Figure 4.2)

One of the most critical pieces of information that staff and the community were attempting to come to grips with was the effect of certain design elements on the overall cost of a project. Specifically, a great amount of interest is usually shown in the cost of sidewalks, curbs, street trees and planting strips, since property owners often view these as superfluous elements of the street design.

In assembling these costs, staff utilized cost information from the Permit Engineering Section in the Bureau of Transportation Engineering and Development. This cost information is based on the historic tracking of bids, and is utilized by the Permit Section to estimate costs of street improvements that come through the permit process. These costs are for construction only and do not include design or administration.

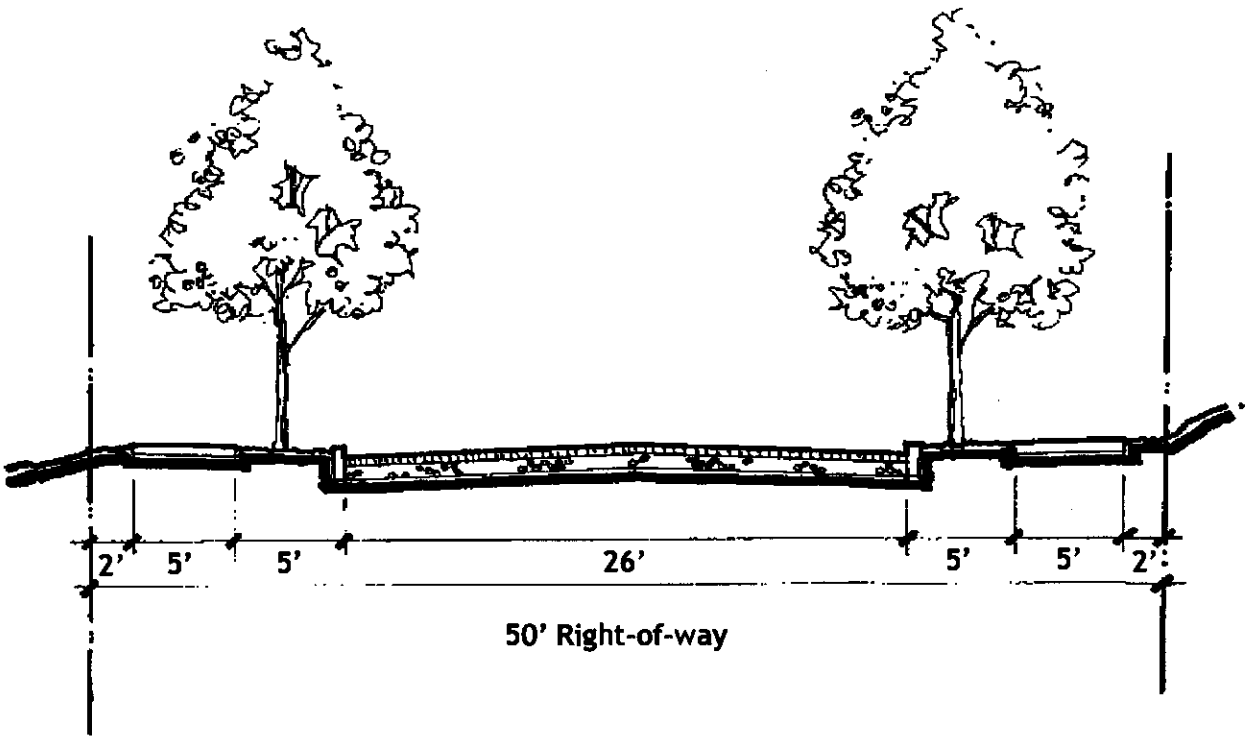


Figure 4.2 - Typical Street Section

Design Component	Unit Cost (per linear foot)	Total Cost	Percent of Total Cost
FIXED COSTS - 26' Street			
Roadway Paving and Base	$94.27	$20,740	22.4%
Driveways (8)	$43.64	$9,600	10.2%
Curbs both sides	$28.64	$6,300	6.8%
Intersection Pavement	$11.50	$2,530	2.6%
Street subtotal	*$178.05*	*$38,620*	*42.0%*
FIXED COSTS - Stormwater			
Main Line Pipe/Manholes	$68.18	$15,000	16.2%
Water Quality	$81.82	$18,000	19.4%
Catch Basins and Leads	$34.09	$7,500	8.1%
Stormwater subtotal	*$184.09*	*$40,500*	*43.6%*
FIXED COST SUBTOTAL	$362.14	$79,120	85.6%
VARIABLE COSTS			
Sidewalk both sides	$31.82	$7,000	7.5%
Street Trees	$20.00	$4,400	4.7%
Planting Strips	$9.09	$2,000	2.2%
VARIABLE COST SUBTOTAL	$60.91	$13,400	14.4%
TOTAL COSTS	$423.05	$92,520	100.0%

Table 4.1 - Typical Costs, 26' Wide Street Utilizing Existing Design Standards

The results of this cost information are tabulated in Figure 4.1. There are a few points that are worth mentioning related to this information:

- In the case of a street improvement requiring a storm sewer line, 85% of the cost of a street improvement is directly related to street paving and stormwater conveyance and treatment.
- The cost for a 26 foot wide street with sidewalks on both sides is $423 per linear foot.
- Currently, approximately 89% of the project cost ($376/LF) is the property ower's share, and the typical property owner assessment is $12,500.
- "Fixed" costs on the project are defined as those costs which are mandatory if a street is to be paved. These elements include street paving and base, stormwater improvements, driveways, and curbs, and comprise approximately 85.6% of the total project costs.
- "Variable" costs (sidewalks, street trees, and planting strips on both sides) cost approximately $61/LF, or 14.4%, of the total construction costs.
- Where it is possible to use sumps on a project, costs can be reduced up to $20,000 (21%, or $90/LF)

4.3 LOCAL STREET INVENTORY

The Office of Transportation maintains a database of street conditions for every street within the City limits. The information used for the LID Redesign Process is derived from this database, known as the City of Portland's Pavement Management System (PMS). The PMS is kept by the Bureau of Maintenance and is the primary database for ascertaining the condition of Portland's public streets. The system is used to rate each street in the City in terms of its condition, including factors such as pavement condition, the presence of curbs, stormwater facilities, and other factors. It also contains information on whether a street has been accepted for maintenance by the City. This rating is then used to help prioritize the City's street maintenance activities.

The information presented in the accompanying figures is broken down across two characteristics: by geographic area and by type of street. Each of these areas is described more fully below.

Geographic Areas

The streets were inventoried in seven different geographic areas in the City of Portland (Figure 4.3). The seven are:

- North Portland
- Northwest Portland
- Inner Northeast Portland (Northeast Portland west of NE 82nd Avenue)
- Outer Northeast Portland (Northeast Portland east of NE 82nd Avenue)
- Southwest Portland
- Inner Southeast Portland (Southeast Portland west of SE 82nd Avenue)
- Outer Southeast Portland (Southeast Portland east of SE 82nd Avenue)

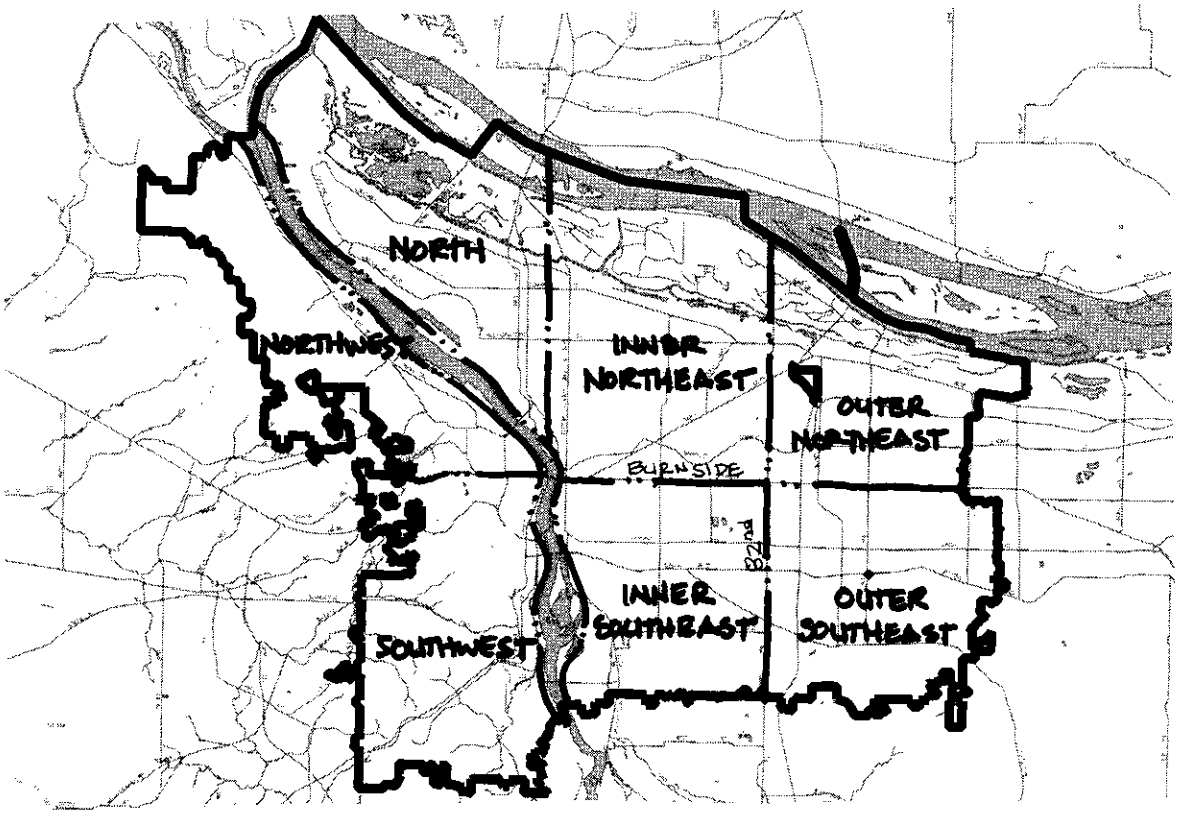


Figure 4.3 - Geographic Breakdown for Street Inventory

Street Type Definitions

Streets were broken down into a number of categories based on a combination of level of use and level of improvement. The definitions for each category are as follows:

By use:

- Arterial - Streets classified as Neighborhood Collector and above in the City's Transportation Element (e.g., carrying more than neighborhood traffic and most likely maintained by the City)
- Local - Streets classified as Local Service Streets in the City's Transportation Element and carrying local residential traffic only

By level of improvement:

- Improved - Street has been improved to a level that the City has accepted maintenance responsibility for the vehicular way. This category does not address whether a street has sidewalks, street trees, or adequate storm drainage.
- Substandard - Street does not fully meet City standards, but has been improved with some sort of hard surface at some point. The City may perform a varying level of maintenance on substandard streets, from no maintenance to a high level (e.g., the same as improved streets) of maintenance.
- Gravel - Street is open and used by traffic but either has never had a hard paved surface or the surface has deteriorated to a point that it is unrecognizable. No maintenance is performed on these streets.
- Paper - Street exists as platted right-of-way only and is not currently being used for vehicles, although it may support pathway/ stairway connections.

Summary Findings

- Nearly 600 of the 2200 miles of Portland streets, around 27%, are either substandard or gravel streets. Reconstructing these streets new would cost approximately $1.43 billion in today's dollars.

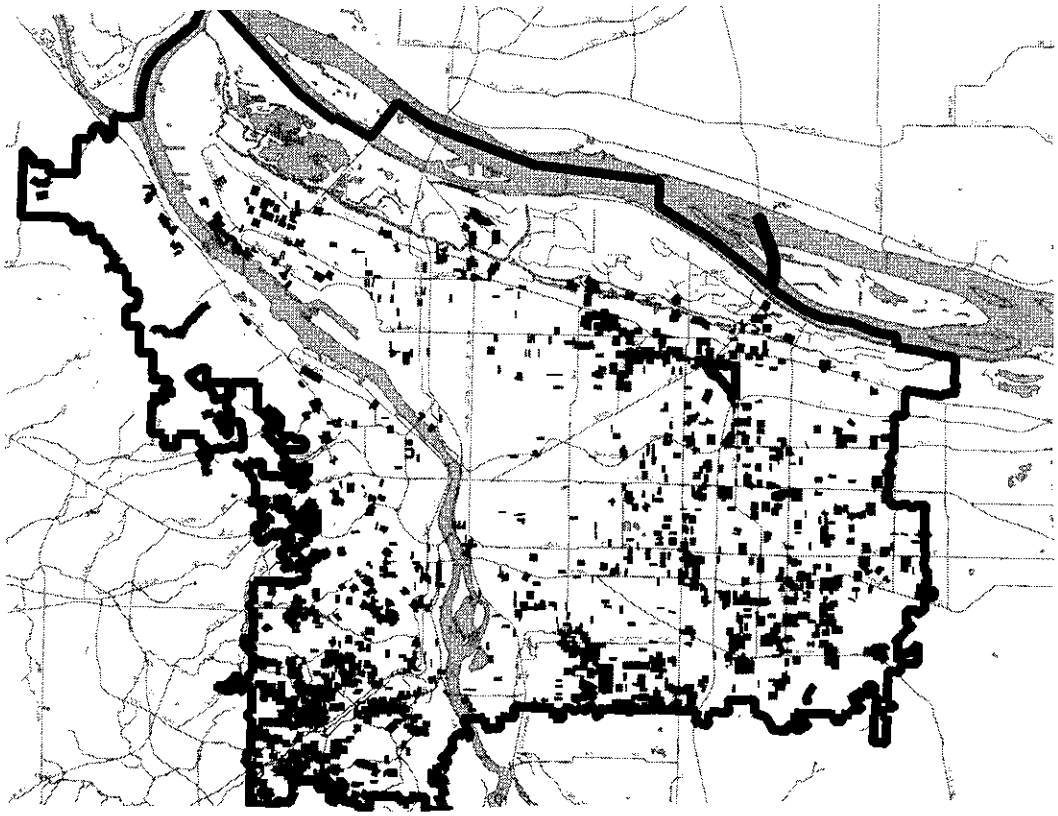


Figure 4.4 - Distribution of Dirt/Gravel and Unmaintained Substandard Streets

- Achieving a cost savings of as little as 15% through economy of scale and cost efficiency could lower the cost of the City's infrastructure improvements from $1.43 billion to $1.2. billion.

- Two-thirds of the gravel streets in the City (46.7 miles) are in SW and Inner and Outer SE Portland. (Figure 4.4).

- SW Portland has 35% (144.7 miles) of the City's substandard local streets, 45% (50.9 miles) of the City's substandard arterial streets, and 24.8% (17.4 miles) of the City's gravel streets, although it accounts for only 19% (417.6 miles) of the City's total street miles.

- 70.4 miles of gravel streets in the City of Portland would cost approximately $167 million (year 2000 costs) to construct to current standards.

- Of the 413.7 miles of the City's Substandard Local Streets, 45.2% (186.8 miles) receive no maintenance, and another 16.7% (69 miles) are oil-gravel roads which receive minimal, if any, maintenance attention. Nearly 40% of these streets are in SW Portland.

4.4 THE LID PROCESS

Staff in both the City Auditor's office and the Office of Transportation worked together to outline the LID process and the roles, responsibilities, and tasks that are assigned in order to take a LID from inception to completion. The following summary attempts to highlight areas where there appear to be inefficiencies, inconsistencies, or room for improvement.

4.4.1 Purpose of Local Improvement Districts

Part of understanding the LID process is understanding the need for the LID tool in the first place. In general, Local Improvement Districts and the process for implementing them exist because they allow property owners to build improvements that directly benefit them, to ensure that all property owners who benefit directly from the improvements help pay for the improvements, and to offer public financing to property owners assessed for local improvements.

Because LIDs require that all benefiting properties share in the cost of the district, a process has been set up to ensure that the districts are set up in a fair, equitable manner. As a result, there are a number of steps in the LID process that provide opportunities for property owners to provide feedback to the City, and City Council must ultimately approve the formation of the district and the final assessments placed on property.

4.4.2 Code Background

Both State law and the City of Portland's Charter and Code provide a great amount of flexibility in forming Local Improvement Districts. This flexibility, if utilized correctly, is a strength of the process in that it allows staff and property owners to craft a district around a neighborhoods specific set of issues. However, there are areas where improvement or clarification within the code may be required to ensure that the LID process remains fair and equitable.

4.4.2.1 Oregon Constitution and Oregon Revised Statutes – Key Issues

The Oregon Constitution and Oregon Revised Statutes (ORS) provide the legislative authority for local jurisdictions to form LID's. The statutes guide local processes in a number of ways: they require local governments to offer financing for at least 10 years to property owners in LIDs, and also lay out a general process that must be followed in order to form a LID.

Key elements of the Constitution and the ORS include:

Oregon Constitution, Article 11, Section 11 - This section of the constitution provides a broad definition of alocal improvement and provides for limitations on local improvements and assessments: "The total of all assessments for a local improvement shall not exceed the actual costs incurred by the governmental unit in designing, constructing and financing the project. "

ORS 223.210 - Installment Payment of Assessment - Provides for notice to be given to property owners of final assessment and a minimum of 10 days to be given to property owners to take out an installment loan.

ORS 223.215 - Application for Installment Payments - Defines the minimum content and provisions of an application to pay off the assessment over a period of no less than 10 nor greater than 30 years. Property owners signing the application accept the project and assessments as complete. The application must also contain acknowledgement of an interest charge and a description of the property assessed. A local government may also offer financing for less than 10 years, provided property owners are aware that longer terms are available and they elect to take out a loan for a shorter term.

ORS 223.225 - Recordkeeping - The local government shall keep all applications on file and track the date, name, property description and assessment amount for each application.

ORS 223.317 - 223.327 - Provides for reapportionment of assessments upon subsequent partitions of originally assessed property.

ORS 223.387 - Description of property - Outlines information required to adequately describe property and property ownership, as well as procedures for when property ownership is not known or the property owner's whereabouts cannot be determined.

ORS 223.389 - Local assessment procedures - Grants authority to local governing bodies to "...presecribe by ordinance or resolution the procedure to be followed in making estimated assessments and final assessments for benefits from a local improvement..." Specific provisions which must be included in these ordinances or resolutions includes a minimum of 10 days' notice to property owners to be made by "...posting, by newspaper publication, or by mail, or by any combination of such methods." The notice must also contain the time and place the matter will be heard and when objections and remonstrances will be considered.

This section also assigns responsibility to the "governing body" for determining "whether the property benefited shall bear all or a portion of the cost." Later, this section states more specifically how this can be determined: " The governing body shall determine the amount of estimated assessment to be charged against each lot within the district, according to the special and peculiar benefits accruing to the lot from the local improvement, and shall by ordinance or resolution spread the estimated assessements."

ORS 223.401 - Review - Property owners have a right to review the assessment against their property.

ORS 223.405 - 223.485 - Reassessment - These sections of ORS relate to the reassessment of a local improvement. However, it is the City Attorney's opinion that the ability to reassess was taken away from the governing body as a result of certain provisions contained within Measure 5.

4.4.2.2 City Charter – Key Issues

The City Charter provides the framework for City government in a similar way that the state constitution provides the same for state government. In fact, a unique aspect of Portland's City Charter is that it predates the Oregon Constitution. As a result, the City Charter takes precedence over the state constitution on common issues.

Relating to LIDs, the Charter lays out the basic framework for the process, and assigns the role of final decision making on LIDs to the City Council. Relevant points within the Charter are detailed below.

Council Powers (9-402) - Council can order improvements, determine benefit, and collect assessments from benefiting properties

Remonstrances (9-403)- Sets time limits for remonstrance periods (no more than 60 days from mailing of original notice, restricts formation of district should remonstrances cross a certain threshold (60%) - This section means that City Council may form a district with or without a petition as long as no more than 60% of the affected property owners do not remonstrate, or object, to the formation of the district.

Exception - Sewer Improvements (9-501) - Council can order improvements, determine benefit, and collect assessments from benefiting properties for sewer improvements, and remonstrance process followed except that any and all remonstrances can be overruled.

Assessments and Collections - Council can determine if zero benefit exists for particular lots (9-701) and establish by ordinance procedures for assessing. "...An assessment shall not exceed the apportioned share of actual costs nor exceed the amount of the benefits. Each parcel shall be considered benefited by the local improvement to the full amount of the assessment levied on it." (9-702)

Financing Local Improvements and Bonding - Enables property owner to apply for bonding above a minimum assessment amount (9-801)

4.4.2.3 City Code – LID Formation - Key Issues

City Code prescribes more specificity to the LID process, expanding on roles and responsibilities and describing procedures to be followed in the formation of the district. The relevant code issues are outlined below, with key players in the process outlined (e.g., City Council, Responsible Engineer, property owners, Auditor).

17.08.040 - Institution of LID - An LID may be instituted by a majority of property owners by area within the proposed district or by City Council.

17.08.050 - Responsible Engineer is responsible for validating petition, researching delinquencies/liens, and determining bonding capacity.

17.08.060 - Responsible Engineer to prepare plans, specs and estimate and determine boundary of district for benefiting properties.

17.08.070 - Council powers - City Council has final say on nature of improvement, boundaries of district, benefiting properties, timing of improvements. If Council decides to proceed with LID, Resolution of Intention is passed.

17.08.080 - Notification - Auditor publishes Resolution of Intent 3 times successively in DJC. Responsible Engineer posts notice and Resolution within district, forwards affidavit to Auditor. Auditor mails notice of assessment to property owners on first date of advertisement but not less than 14 days prior to hearing.

17.08.090 - Remonstrances - Property owners may submit remonstrances to the City Auditor no less than 7 days prior to hearing.

17.08.100 - Hearing - City Council holds a hearing no less than 14 days from mailing of notices. Council has power to discontinue or modify proceedings or overrule remonstrances. If modifications result in changes in assessment or district boundaries, new estimates must be made and notices mailed, but advertising and posting is not required. If modification addresses remonstrance, then remonstrance is not valid unless refiled.

17.08.110 - City Council Jurisdiction - City Council may proceed with street, parking, lighting or other like improvements if less than 60% of the property owners remonstrate. If 60% remonstrate, Council may not proceed for a period of six months. Council may overrule any and all remonstrances for other improvements (e.g., sewer, fire stops, etc.).

17.08.120 - Time and Manner Ordinance - Within 3 months of remonstrance hearing, City Council may pass an Ordinance directing the project to be constructed.

17.08.140 - Contract Completion - Remonstrances - Responsible Engineer prepares Certificate of Completion and Final Engineer's Estimate, forwards to Auditor. Auditor publishes notice of completion 3 times in DJC, with date of hearing on project acceptance. Property owners may remonstrate against City acceptance of work up to date of the hearing.

17.08.150 - Acceptance of Work - City Council may accept work or direct further modification.

4.4.2.4 City Code – Assessments - Key Issues

On the issue of how assessments are levied and collected, City Code again expands on the Charter. Issues defined include determining project costs, maximum overhead costs, notification and billing procedures, and assessment practices. The relevant code issues are outlined below, with key players in the process outlined (e.g., City Council, Responsible Engineer, property owners, Auditor).

17.12.010 - Total Cost - Auditor determines total cost of improvement.

17.12.020 - Allowance for Engineering and Administration - Engineering charged at 100%. Auditor fees set: Project Creation, $4.38/ $1000 of project value; Assessment charge $28 per property; Billing fee $2.50 per bill.

17.12.030 - Estimate of Cost and Apportionment - Auditor apportions final cost to benefiting properties within district, minus subsidies. Proposed assessments are filed with City Council.

17.12.040 - Notice of Proposed Assessments - Auditor mails notice of proposed assessment no less than 14 days before assessment hear-

ing. Notice must be published once a week for two successive weeks in newspaper of general circulation (not DJC and no assigned responsibility).

17.12.050 - Remonstrances and Hearings - Property owners must remonstrate at least 7 days prior to hearing. City Council must hold a hearing, and may continue it as appropriate. Council will determine amount to be assessed. Final assessed amount must not exceed special and peculiar benefit derived by each property. Council may change assessment from proposed (no mention providing new notice to property owners).

17.12.060 - Assessment Ordinance - City Council may pass assessment ordinance, effective immediately upon passage. Auditor enters assessments in lien docket.

17.12.070 - Notice - Auditor mails bill for assessment.

4.4.3 LID Process - Issue Summary

In general, there are a few issues that stand out when one compares community concerns with the legal framework of LIDs that is provided in state law and City Code and Charter. Some of these issues include:

- The power of City Council - Council has a great deal of flexibility in determining the character of improvements and the way that costs are apportioned.
- Unclear definition of Roles and Responsibilities - Some areas of code need to be studied to determine whether the most appropriate parties are responsible for certain activities (e.g., determining total project costs) and defining responsibilities for certain activities (e.g., advertising acceptance of work).
- Administrative Costs - Rates for Auditor do not reflect actual costs incurred by Auditor on most projects.
- Practicality of some requirements - Not all Code requirements are consistently met (e.g., advertising of acceptance of work or resolution directing engineering work to proceed) because there seems to be little value in doing so.
- Work performed by Auditor: Many work elements undertaken by the Auditor's office are not required by code. However, these elements may provide value in terms of record keeping, financial management, and public process.
- Enumeration of support - Support in code is based solely on the amount of square footage owned by a property owner, and not on the assessment methodology.

4.5 EXISTING DESIGN STANDARDS

One of the most contentious areas in the LID process is street design. In many cases, design standards have been established by drawing upon decades of experience in street construction and maintenance. In other cases, there are relatively new design requirements that have resulted in changes in City policy. For example, sidewalk requirements are the result of the City's desire to encourage pedestrian mobility and safety, while stormwater treatment requirements help meet the City's goals for clean water and protecting watersheds.

In order to better understand City design standards and their effect on how we build LIDs, staff assembled the major components of street and stormwater design and researched the rationale behind those standards. The intent of this exercise was to focus on the rationale behind the design standards, allowing property owners to evaluate the benefits of current standards separate from cost. The result of this inventory is a better understanding of current City standards, the rationale behind those standards, where the standards are applicable, and the component costs for the design standards.

For the purposes of this report, design standards have been broken out into two areas: Street Elements and Stormwater Elements. Component costs for design standards is presented immediately after the inventory of the design elements.

4.5.1 Street Elements

There are seven primary design components that comprise the design of a street: The Roadway Section (pavement and roadway base thicknesses and materials), Roadway Width, Curbs, Driveways, Sidewalks, Planting Strips, and Street Trees. These elements are illustrated in Figure 4.5.

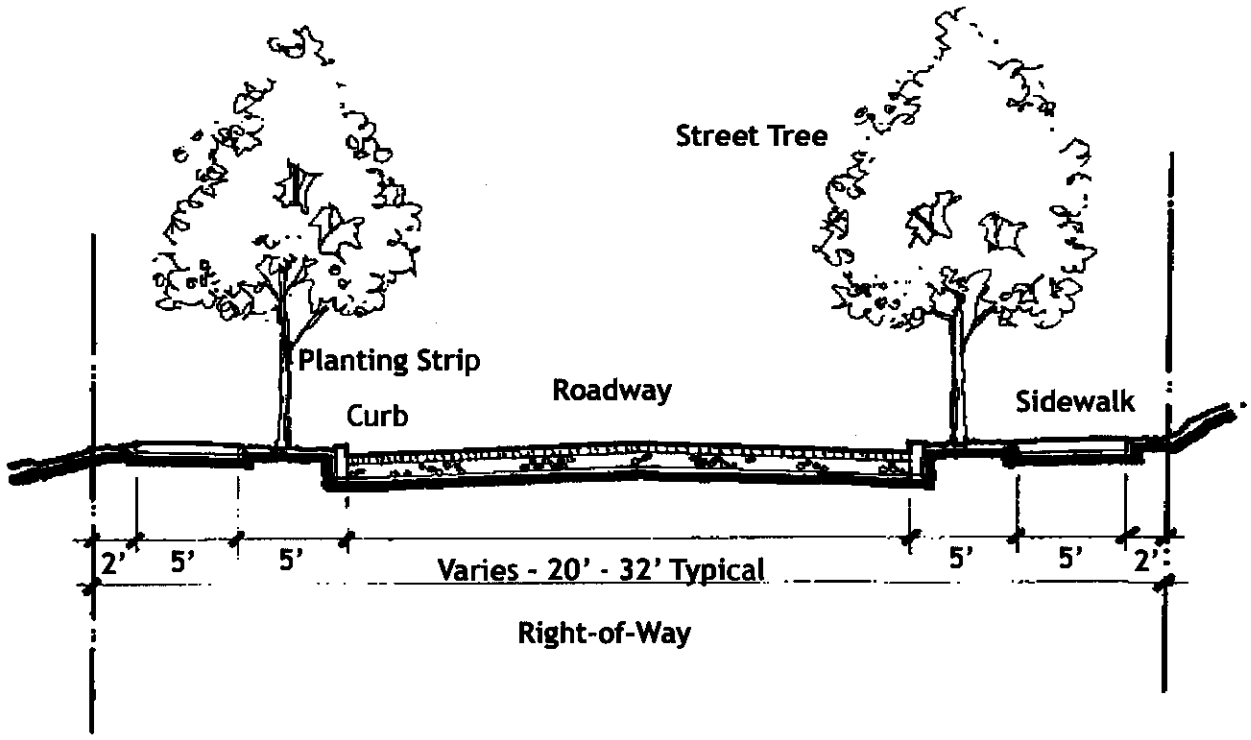


Figure 4.5 - Typical Street Section- Existing Design Standards

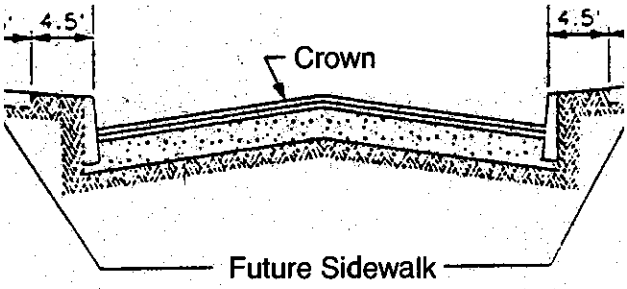
4.5.1.1 Roadway Section

Design Standards

The design of the roadway section is one of the most critical elements in creating a long-lasting street. For a normal volume residential street, the typical section design is a minimum of 3" of Asphaltic Concrete (A.C.) laid over 8+" of compacted stone (Figure 4.6). In some cases where groundwater is an issue, a layer of fabric (foundation stabilization) may be added between the compacted stone and dirt below in order to prevent soil from migrating into the roadway base and weakening the street. On streets where heavier traffic or vehicles are anticipated, both the AC and roadway base may be thickened to provide extra support and strength.

Rationale

- Long term maintenance costs kept to a minimum
- Gravel base provides compacted and permeable base for roadway - lessens water impact on road integrity



Typical Roadway Paving Section

6" Crown, 6" Gutter
3" Asphalt Concrete Pavement Class B
6" Min. Crushed Rock (GR 1"-0")

Figure 4.6 - Typical Roadway Paving Section

4.5.1.2 Roadway Width

Background

Prior to 1991, minimum street widths were 28 feet (parking one side) or 32 feet (parking both sides). "Skinny Street" standards were developed in 1991 as a safety and cost savings response, and have been accepted as a design standard for neighborhoods with lower density zoning. The street widths that resulted from the skinny street standards were driven primarily by emergency access concerns.

Design Standards

Street widths are determined by the City's Subdivision Regulations (City Code Chapter 34). Table 4.2 shows the required street widths for the various zoning categories. As the table shows, lower density residential neighborhoods (R5 or less dense) are required to have either a 20 foot (parking one side) or 26 foot (parking two sides) street. Higher density residential neighborhoods are required to have a 28 foot (parking one side) or 32 foot (parking two sides) street.

Rationale for Street Widths

There are a number of reasons for the current street width standards that the City employs. In general, the relationship between zoning and street width assumes that higher density zones will require more on street parking and will have more driveways, necessitating some extra space for maneuvering.

The 20 foot and 26 foot standards, however, were generated with additional benefits in mind. Specifically, the benefits of these streets include:

- Less impervious surface resulting in reduced stormwater runoff
- Slower traffic speeds
- Less impact on private property
- Less right-of-way width required
- Reduced cost compared to wider streets

Right-of-Way Width Minimum	Roadway Width Minimum	Comp. Plan Designation of Adjacent Lots	Type of Street	On Street Parking Allowed
Varies according to need	Varies according to need	All I, E, C, OS	Local/Arterial	
50 Feet 40 Feet	32 Feet 28 Feet	R2.5 - RX R2.5 - RX	Local Local	Two Sides One Side
50 Feet 40 Feet 40 Feet 35 Feet	26 Feet 26 Feet 20 Feet 20 Feet	R5 R7 - RF R5 R7 - RF	Through Street Through Street Through Street Through Street	Two Sides Two Sides One Side One Side
40 Feet 35 Feet	24 or 26 Feet 18 or 20 Feet	R5 - RF R5 - RF	New Dead-end <300 Feet in length	Two Sides One Side
50 Feet 40 Feet 35 Feet	32 Feet 28 Feet 20 Feet	R5 - RF R5 - RF R5 - RF	New Dead-end >300 Feet in length	Two Sides One Side None

Table 4.2 - Street Widths

4.5.1.3 Curbs

In some neighborhoods, curbs can be one of the most controversial elements of street design. While the initial purpose of curbs was to help channel water, separate pedestrians from vehicles, and protect the roadway edge from unraveling, changing attitudes towards stormwater management have generated interest in finding alternatives to the standard curb.

Design Standards

In general, curbs are required on most local streets. The typical curb height is 7" above grade, with another 9-11" below (Figure 4.8). The standard curb material used is concrete, although granite is also acceptable.

Rationale for use of Curbs

Curbs are one of the most versatile street elements in terms of the variety of benefit that they add to a street design. The edge created by the curb defines boundaries for vehicles and pedestrians, dirt and pavement, and stormwater. Specifically, benefits of curbs include:

- Protecting the roadway edge from "unraveling"
- Defining the roadway and parking area - keep cars on streets or driveways
- Channeling stormwater to inlets and away from sidewalks and private property
- Providing protection for pedestrians

Some of the benefits of curbs can also be a liability: channeling and concentrating stormwater means that the water needs to be collected and conveyed, increasing the need for stormwater quality or retention facilities. Given the long term maintenance and safety benefits of curbs, however, the City has always leaned towards requiring curbs and attempting to treat stormwater after it has been collected.

Additional Issues

There are some issues that are unique related to the presence of curbs on a street. These primarily affect street maintenance, and include:

- Streets without curbs, even if maintained by the City, are not swept (curbs collect debris)
- Where a planting strip is next to a curb, the City maintains the curb
- Where a sidewalk is attached to the curb the property owner maintains the curb.

4.5.1.4 Driveways

Design Standards

The need for driveways on streets is self-evident. However, there are a number of standards and issues related to how driveways are designed and located as part of a street design. These standards include:

- One driveway per property is allowed on local streets.
- Typical driveway section is 6" of concrete poured on grade (Figure 4.8).
- Minimum residential driveway width is 10 feet, typical width is 12-14 feet.
- Driveway apron is constructed to right-of-way line, some reconstruction beyond that may be necessary depending on grades.
- Standard driveway material is concrete within right-of-way, then whatever existing driveway material is on property (typically concrete, asphalt, gravel).
- Driveways are not allowed where there is less than 18 feet between the garage/face of house and the back of sidewalk. Some exceptions are allowed to this standard.
- Driveway costs will increase for narrower streets, given the necessity of providing a longer driveway connection from the curb to the existing driveway at each property.

Rationale

The standards for driveway construction are driven primarily by the desire for ease of maintenance and access to properties. The reasoning behind some of these standards include:

- Minimum depth of driveway is necessary to prevent cars from parking over sidewalk
- Concrete is used as standard for longevity and ease of property owner maintenance
- One driveway is allowed under most residential base zoning, so additional driveways can be allowed if the property owner has a permit.

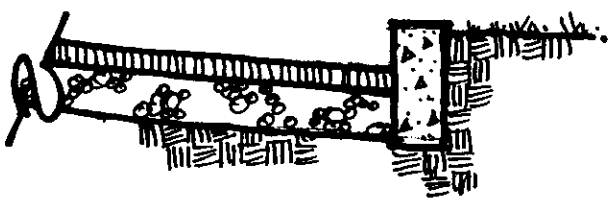


Figure 4.7- Standard Curb Section

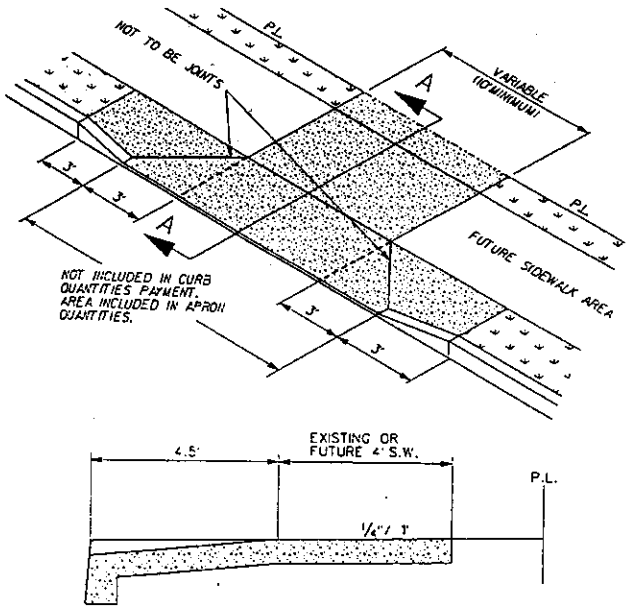


Figure 4.8 - Standard Driveway Section

4.5.1.5 Sidewalks

Background

Sidewalks in Portland's older neighborhoods have been constructed at almost every street, most typically when the neighborhoods were first developed. However, there was a period of time during which sidewalks were not a required element of street improvements, especially in newer or recently annexed neighborhoods. Recent interest in increasing pedestrian access and safety in all neighborhoods has led to greater interest in constructing sidewalks as part of almost every street improvement.

Beyond the change in approach to pedestrian access at a general level, there has also been legislation in the last ten years that has emphasized or required the need for sidewalks on all public streets. Also, some of this legislation affects the design of sidewalks and public facilities.

The Americans with Disabilities Act (ADA) requires that public facilities (e.g., streets) must be accessible to people with disabilities. Also, the ADA established sidewalk design standards. At a minimum, the side slope of a sidewalk may not exceed 2%, and the running slope along the street may not exceed 2% + the running slope of the street. The minimum clear width for an accessible path is 3 feet; however, this width does not accommodate two people passing on a sidewalk. There was never a minimum width set through the ADA guidelines for public rights-of-way, the 3 foot clear width is actually derived from the guidelines covering private facilities. Currently, new standards are being developed that specifically relate to public sidewalks that would likely create minimum clear widths of five feet.

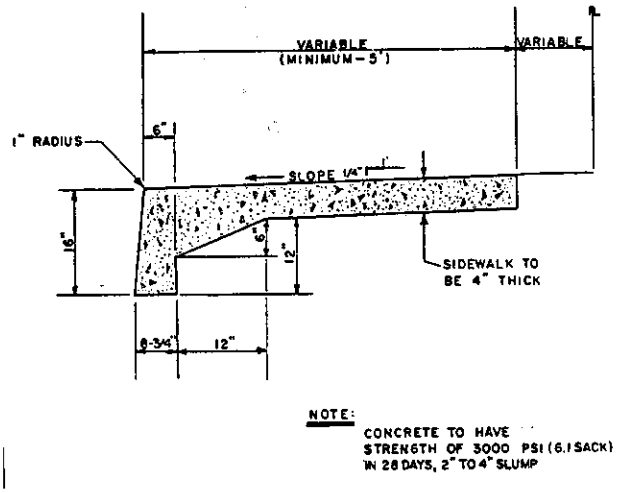


Figure 4.9 - Standard Sidewalk Section

Beyond the ADA, the State of Oregon's "Bicycle Bill" requires that all new roadway construction in the State of Oregon have "adequate bicycle and pedestrian facilities." While not explicit in exactly what would be considered "adequate," sidewalks would be considered the minimum for the majority of public streets that are built.

Design Standards

There are a number of different factors that impact sidewalk planning and design. Taking these in the order in which they need to be considered, designers and residents must decide whether sidewalks are required, and if so whether they are required on both sides of the street; how wide the sidewalks are; and the cross slope and cross section of the sidewalk itself (Figure 4.9). These factors are detailed below:

- Sidewalks on both sides of the street are required as the general standard.
- Sidewalk on one side is allowed in existing rights of way where right-of-way has topographical or natural resource constraints; or where right-of-way has existing development or mature landscaping constraints; or where the street is a cul-de-sac with fewer than 20 dwelling units.

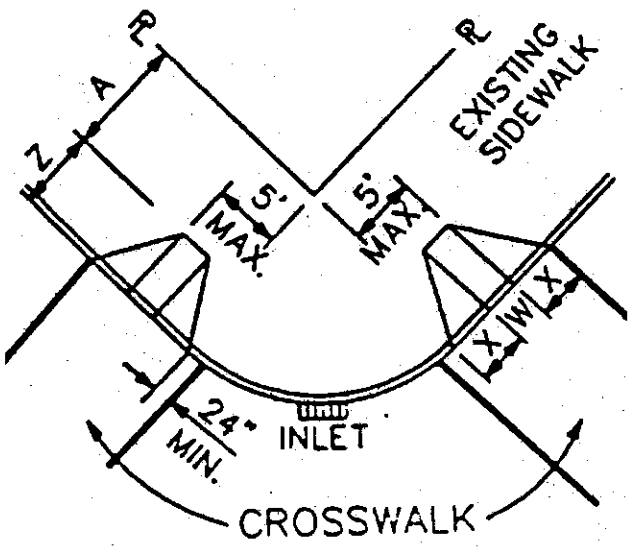


Figure 4.10 - Standard Curb Ramps

- No sidewalks are allowed only if the right of way has very severe topographic or natural resource constraints.
- Minimum "clear" width (meaning no obstructions) is 5 feet on local streets, 6 feet on collectors/arterials.
- Planting strips separating the sidewalk from the street are strongly recommended.
- Curb ramps with a minimum width of 4 feet and a maximum 8.33% slope and a minimum 4 foot by 4 foot landing with a maximum 2% slope in all directions are required at each corner of an intersection (Figure 4.10).
- City guidelines prefer two ramps at each corner when feasible.
- Standard material is concrete (4" thick), although pavers are also allowed everywhere.
- Alternative materials (asphalt, crushed rock) are available for limited use.

Rationale

There has been a great amount of thought and experience put into the sidewalk design standards utilized by the City. These standards derive from goals of making sidewalks comfortable to use, increasing pedestrian access in neighborhoods, and for ease of maintenance. Some of the logic behind the design standards include:

- Sidewalk requirements relate to State Bicycle Bill and ADA, which require adequate facilities for pedestrians and disabled users. The City, through its Pedestrian Design Guide, has defined when the adequate facility must be a sidewalk.
- The focus for the requirement of sidewalks include connectivity to other sidewalks; sidewalks along all arterials/collectors; access to transit; access to commercial, institutional, or park uses; and higher density residential zoning where more pedestrian activity is generated.
- The minimum clear widths set by the City (5 feet on local streets and 6 feet on arterials) allow two people to walk comfortably side by side, or two people to pass each other on the sidewalk.
- Planting strips (see below) help separate the sidewalk from the street, providing a more comfortable walking environment. Also, planting strips provide a place for utility poles, traffic signs, mailboxes, and trees to be placed. Without a planting strip, a 5 foot minimum clear is still required, so a sidewalk must increase in width (typically 2 to 2 ½ feet) to accommodate these obstructions.
- Curb ramps allow wheelchair users and other disabled persons to access the sidewalks.
- The 2% landing is required as a turning area for wheelchairs so that they do not tip over when a change of direction is necessary.

- Two ramps are preferred because they take the pedestrian out of the main area of the intersection, provide for the shortest possible crossing distance, and are in line with the main flow of a sidewalk.
- Concrete is the standard material because of longevity - little long term maintenance is required if the sidewalk is constructed properly in the beginning.
- Concrete and pavers are also much easier and less expensive for a property owner to maintain than asphalt.

Additional Issues

In the City of Portland, sidewalks are the responsibility of the adjacent property owner to maintain; the City maintains curb ramps and corners. If the sidewalk is not separated from the curb, then the property owner is also responsible for maintaining the curb. City of Portland sidewalk inspectors check sidewalks on a regular basis to ensure that sidewalks are being maintained to City standards. In many cases, sidewalk maintenance is often the source of objection to sidewalks on street improvement projects.

Alternatives

Alternatives to sidewalk design and materials have been explored thoroughly in the past. The City hired a consultant in 1997 to produce the Alternative Pathway Materials and Design report, and the conclusions of this report were included in the Pedestrian Design Guide. As a rule, the alternatives available for pathway design are seen as interim improvements to help provide pedestrian access until a full improvement can be made. For example, this means that gravel paths may be used on undeveloped or substandard rights-of-way, but they are not intended as a substitute for a concrete or paver sidewalk.

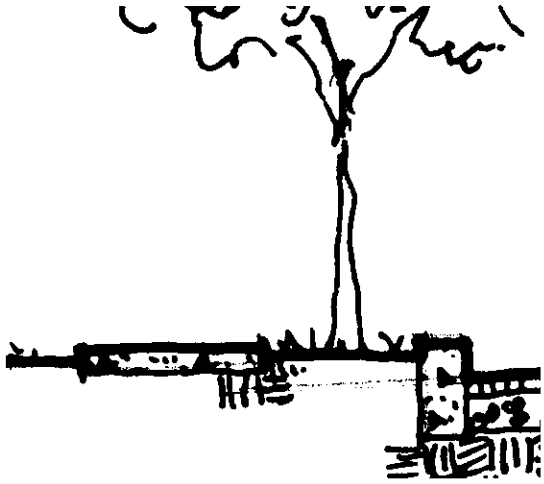


Figure 4.11 - Standard Planting Strip

4.5.1.6 Planting Strips

Design Standards

Planting strips, also known as parkway or park strips, are common fixtures in Portland's older neighborhoods. These areas separate sidewalks from the street and provide a planting area for trees. Specifically, these standards are recommended on all streets with sidewalks and where there is adequate right-of-way or physical room to accommodate them. The minimum width is 3 feet (measuring from the face of the curb), and the most common material options are grass or bark mulch (Figure 4.11).

Rationale

Planting strips are also the source of objection by some property owners, as they see the increased width of the street improvement that results from the inclusion of planting strips into the street design. However, there is some strong rational for the inclusion of planting strips into street improvements:

- Planting strips provide a place for trees to grow, as well as for obstructions (e.g., utility poles, mailboxes, traffic signs) to be placed. Without a planting strip, sidewalk widths must generally be increased 2 feet to accommodate these elements.
- Planting strips provide a greater level of comfort to pedestrians walking along the street by separating them from traffic.
- Planting strips can help balance out the extra impervious surface that the sidewalk adds to a project.
- Planting strips allow street trees to be planted as close to the street as possible, providing shade for the street and visually narrowing the street and reducing traffic speeds.

Additional Issues

Because planting strips are the responsibility of the adjacent property owner to maintain, property owners choose what material they would like to use - grass, bark mulch - or the strip can be left unfinished for the property owners to improve as they see fit.

4.5.1.7 Street Trees

Like sidewalks and planting strips, property owners often object to street trees being included in a street improvement. This resistance is usually due to the property owners' responsibility for maintaining these trees as well as the perceived maintenance problems that trees pose for adjacent sidewalks that the owners are also responsible for.

Design Standards

The minimum size of a street tree at installation is a 2 inch caliper (diameter of trunk measured one foot above ground level) (Figure 4.12). In general, guidelines call for one tree for every 30 feet of frontage. The minimum planting strip/tree well width is 3 feet, although 5 feet is the recommended minimum width. The City purchases a two year establishment period on all tree plantings, and strongly recommends the installation of root barriers along adjacent sidewalks and curbs to prevent root damage.

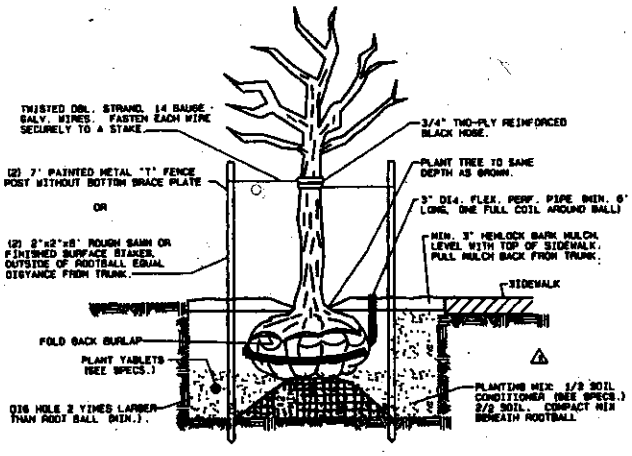


Figure 4.12 - Typical Street Tree Detail

Rationale

The City's Urban Forestry Plan guides the City's activities related to street trees and their role in neighborhood livability. From this plan, which was developed by the Urban Forestry Program in the Bureau of Parks and Recreation, comes the basis on which street tree requirements derive, including:

- Trees are required on projects to provide shade, reduce roadway temperatures, and enhance the design of the street.
- Trees can provide important benefits in reducing stormwater peak flows, separating pedestrians from the roadway, and visually narrowing the roadway, thereby reducing traffic speeds.
- The minimum tree size of 2" caliper is necessary to ensure that the tree is large enough to withstand traffic and abuse that they are often subjected to in the right-of-way. Larger trees will have a higher establishment rate than smaller trees.
- Tree spacing is based on actual species selected to ensure that the mature trees will be appropriately spaced.
- Establishment period is required to give the trees the best chance of surviving during the most crucial period of growth, and to also ensure that the contractor is responsible for the proper installation and successful establishment of the trees.

Additional Issues

Property owners are responsible for the maintenance of street trees. As a result, trees may not be removed without a City permit, and a permit is also required in order to prune street trees.

4.5.2 Stormwater Elements

Just as critical as the street elements that we see every day are the elements that we often don't - facilities that convey and treat stormwater that runs off from the street. With the wet climate here in Portland, stormwater obviously must be a major component of street design. Recent interest in cleaner water and reduced erosion has led to the establishment of specific design standards for stormwater treatment, a trend that will continue to strengthen as the City attempts to address the federal listing of steelhead trout as an endangered species.

In general, stormwater standards break down into three areas: conveyance, treatment, and velocity control. Conveyance standards deal with how stormwater is collected, moved, and disposed of, and include the design of catch basins and inlet leads, main line storm sewers, and sumps. Treatment standards involve removing sediment and pollutants from water, and velocity control standards attempt to reduce stream erosion resulting from large volumes of water entering streams at high speeds.

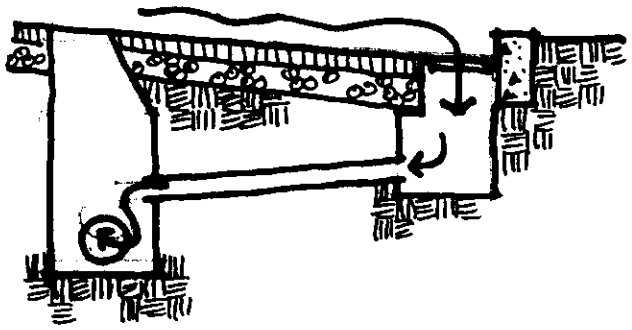


Figure 4.13 - Typical Catch Basin Design

4.5.2.1 Catch Basins/Inlet Leads

Design Standards

Whether a mainline storm sewer or sump is used on a street, catch basins and inlet leads are used to collect water from the street surface and carry it to the main line or sump (Figure 4.13). Standards for catch basins and leads include:

- Inlet lead (pipe) is a minimum 10" diameter (recommended 12" diameter)
- Pipe can be either concrete or HDPE (Plastic)
- Catch basin sizes and locations vary depending on amount of water they handle and the slope of the street - the greater the volume and/or slope, the larger the inlet and inlet opening, and the more frequent the location on the street.
- Manholes must be used where inlet leads join to the main sewer line.

Rationale

- 10" minimum pipe diameter is required to handle stormwater volume and prevent pipe from clogging with debris.
- Manholes are required where inlet leads join a main line sewer to prevent debris from clogging the intersection of these pipes and to allow for maintenance of the pipe junction.
- Concrete and HDPE are both long-term low maintenance materials for stormwater conveyance

Additional Issues

The City, through the Portland Office of Transportation, has typically paid for catch basins and inlet leads as part of an "Intersection and Drainage Subsidy Fund."

4.5.2.2 Sumps

Design Standards

The most common means for disposing of water on the east side of the Willamette River is the use of sumps. These elements, which many people also call dry wells, are essentially large holes in the ground that allow water to infiltrate into the ground below (Figure 4.14. Soil conditions must support the use of sumps. Soils must be well-draining, which most typically means a gravelly type soil. Specifically, standards for sumps include:

- A minimum depth of 30 feet is required
- Sedimentation manholes must be used in conjunction with sumps to provide water quality.

Additional Issues

Although sumps have been an easy, cost-effective way of dealing with stormwater, there is rising concern about their effect on groundwater. Because many older sumps do not have any sort of stormwater treatment associated with them, some pollutants may enter the groundwater during storms. More treatment of stormwater entering sumps may be required in the future if regulators determine that sumps are a significant source of groundwater contamination.

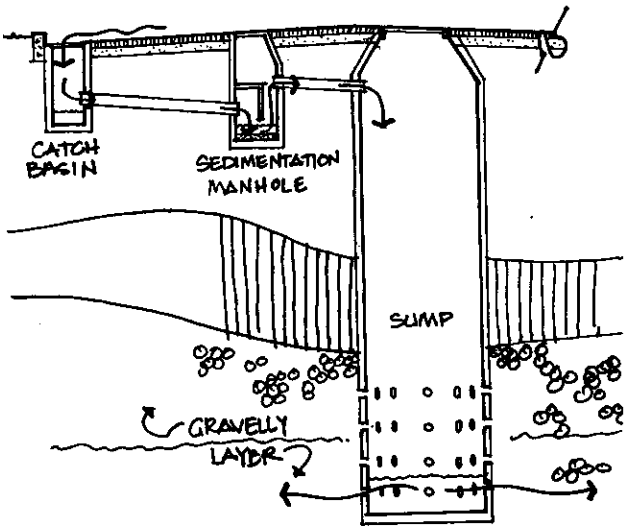


Figure 4.14 - Typical Sump Design

4.5.2.3 Main Line Storm Sewer/Manholes

The most common means for conveying stormwater in Portland's older neighborhoods, as well as those on the west side, is the use of main line storm lines. In fact, in many older neighborhoods, stormwater and sanitary sewer lines utilized the same pipe, a condition that has led to sewer overflows in the Willamette River during heavy storms. This standard was discontinued many years ago and there is currently an aggressive program underway to seperate the storm and sanitary lines.

Design Standards

Standards related to main line storm sewers are straightforward:

- Pipe size is determined by overall volume of water anticipated for a given watershed; minimum diameter is 12"
- Accepted pipe materials are Concrete and HDPE (Plastic)

Rationale

- Minimum pipe size is required to prevent clogging.
- Concrete and HDPE are both low maintenance materials

4.5.2.4 Treatment

Even with the separation of sanitary and storm sewers, the Willamette and its streams are still enduring stormwater pollution from runoff. These pollutants include oil and grease from streets, fertilizer from lawns and gardens, and any other materials that are washed off of streets and property during storm events. Add to these pollutants soil and dust that is carried with the water, and there begins to be a significant contamination of water when it reaches the City's waterways.

Design Standard

The recent listing of fish species like steelhead trout in the City of Portland is the latest indication of the effect of stormwater pollution on our streams and rivers. Standards have been developed to help reduce the impact of sediments and pollutants on stream health, and include:

- City-wide goal: remove __% (?) of the suspended solids in stormwater prior to the water leaving a site (e.g., street).
- Specific goals: Some areas like Fanno Creek are already targeted for higher levels of stormwater treatment due to their current water quality limitations. As an example, projects in the Fanno Basin must remove 90% of the suspended solids prior to being released into the stream system.
- The City's Stormwater Management Manual provides the specific standards that must be met for a project, and contains numerous Best Management Practices that can be utilized to meet these standards.
- The City has also produced an Erosion Control Manual, which provides standards and Best Management Practices for preventing sediments from entering streams. This manual relates primarily to construction activity.

Rationale

Recent federal, state, and local regulations have placed more emphasis on mitigating the impact of polluted stormwater on streams, rivers and lakes. The Clean Water Act, Endangered Species Act, Metro Title III, and the City's Stormwater Management Manual have all precipitated the requirements for stormwater treatment. Specifically, the requirements target the removal of suspended and dissolved particles in stormwater, setting targets for projects to achieve. However, the means to achieve these targets is left to a variety of means which are described in more detail below.

Common Stormwater Treatment Methods

Water Quality Ponds

Ponds actually help achieve goals in two areas: stormwater treatment and velocity control. By allowing water to remain in one place for some amount of time, sediments settle out to the bottom of the pond, helping to prevent the sediments from reaching streams. Plantings in and around the pond remove dissolved pollutants, again improving the quality of water before it leaves the site.

One drawback to using ponds is the amount of space they use. When used to treat runoff from street improvements, property acquisition is usually a necessity if there is no public property available for pond construction. Because of property costs, ponds can be the most expensive of the methods to implement.

Swales

In some cases, it may be possible to collect water in a swale (Figure 4.15) on one or both sides of a street. Swales are essentially ditches with a wide bottom, which encourages water to move more slowly and sediments to settle out. Grass is the most common and effective material to be planted in the swale, and it adds to the water quality benefits by catching pollutants as the water flows through.

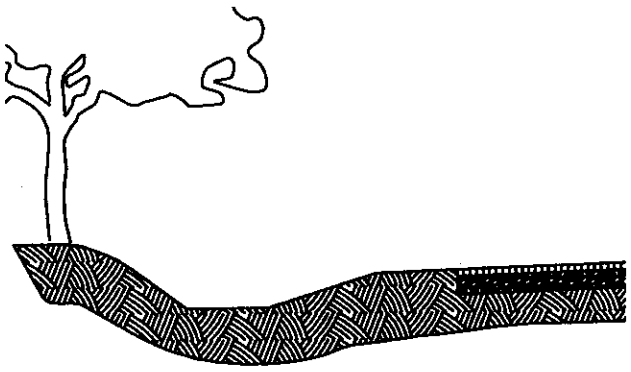


Figure 4.15 - Swale for Stormwater Treatment

One potential advantage to swales, as compared to ponds, is that it is possible that they can be incorporated into the right-of-way. However, in order to be effective, swales cannot be used in steeper areas where water would rush quickly through the swale. In order to be effective, swales must force water to remain as long as possible for pollutants to be trapped and removed.

Mechanical Treatment Manholes/Devices

In cases where there is limited space for swales or ponds, there are a variety of products on the market that have been approved for use as treatment devices. Some of these remove sediment and some pollutants by forcing the water to circulate through a manhole in a certain way that settles these elements out. Other devices use filters filled with a variety of media that remove specific pollutants. Effectiveness varies depending on the treatment goals that must be met and the amount of maintenance that the devices receive. Maintenance is an issue for these devices, as sediments must be removed on a regular basis and, in the case of filtered devices, filters must be changed on a set schedule.

Sedimentation Manhole

These manholes are used primarily with sumps (Figure 4.14), and the main intent of these manholes is to remove sediment prior to the water entering a sump. Dissolved pollutants are not effectively removed with these devices.

4.5.2.5 Flow/Velocity Control

Rationale

- Flow and Velocity control relate to non-sump storm systems.
- Flow control is required to reduce the impact of high water flows on streams and other stormwater systems. In general, this means that water needs to be detained prior to reaching a stream corridor or overstressed storm system so that the peak flow can be reduced and spread out, lessening the damage to the stream or storm system.
- Velocity control is necessary in areas where water is entering a stream system at a high speed due to steep slopes and/or high volumes. Decreasing the velocity, or reducing the energy of the water, as it enters these streams is necessary to protect the stream and storm structure from erosion damage.

Methods

Inline Detention (Flow Control)

In order to limit the amount of water entering a stream system at any one time, it is possible to design storage capactiy within the stormwater conveyance system. This may mean oversizing pipes, which slows down flow and provides additional storage, or building storage tanks in as part of the system.

Energy Dissipator (Velocity Control)

Where a stormwater pipe discharges into an open system, whether it is a natural stream or manmade swale, it may be necessary to construct an energy dissipator to reduce erosion damage. These devices help to slow down water as it exits the pipe and cause it to spread out and lose energy, reducing the stormwater's potential to create serious erosion problems.

Retention/Detention Ponds (Flow Control)

As mentioned previously, ponds can help not only slow down water and regulate flow into streams, but also treat water by removing sediments and pollutants. In general, ponds hold a significant amount of stormwater, allowing water to leave the pond at a greatly reduced rate, if at all.

4.6 WAIVERS

Waivers are documents signed by property owners that commit the property and all future property owners to support an LID on their street should one be proposed. Because it is the City's policy that property owners are responsible for bringing their street frontage up to City standards, many streets are improved at the time a property develops, redevelops, or subdivides. Clearly, this is the best time to make street improvements, when the cost of those improvements can be factored into the cost of development.

However, there are many occasions where it would be unreasonable for the City to ask property owners to make their frontage improvements, primarily because requiring these improvements would result in significant off-site work to accommodate the street. Most often, this off-site work consists of grading or storm sewer connections, and it can easily triple the cost of improving just the property frontage.

In cases like this, the City asks for Waivers in lieu of a street improvement. Basically, the property owner or developer is being asked to commit the property and all future owners to supporting any street and/or storm sewer LID that may be formed, even though the property owner may not be in support of the LID.

Approximately 5400 waivers have been issued in the City of Portland. Figure 4.16 shows the geographic distribution of waivers within the City. Obviously, this distribution follows the distribution of unimproved or substandard streets. However, there does tend to be a greater concentration in neighborhoods that have been in the City for longer periods since there has been more time for waivers to have

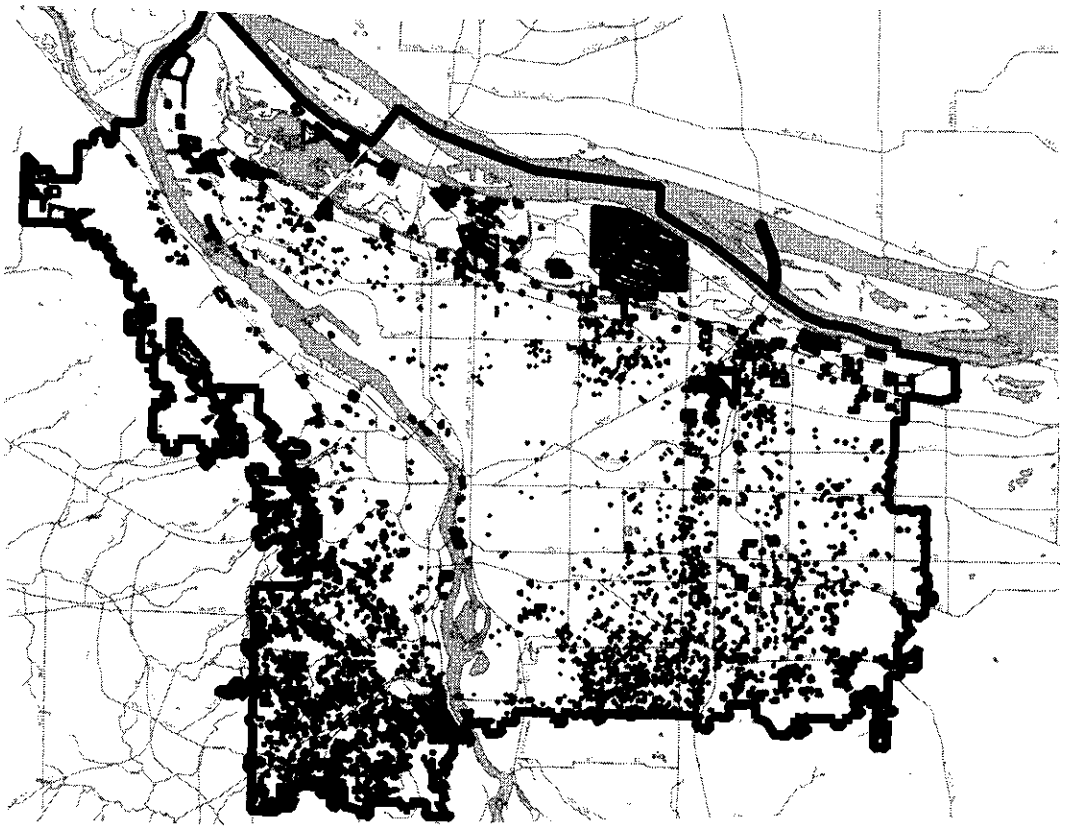


Figure 4.16 - Distribution of Waivers

been issued. This means that Southwest Portland, North Portland, and some portions of Inner Southeast Portland and East Portland have a greater concentration of waivers than in newly annexed areas like Outer East Portland.

There are a number of primary issues with waivers that affect the City's ability to successfully initiate a LID:

Streets/storm sewers are not constructed at the time of development.

Ideally, street improvements occur at the time of development. When waivers are required rather than full street improvements, an opportunity is missed to provide street improvements at the most appropriate time - when costs can be passed along to a willing buyer.

"Free ride" for initial property owner/developer.

Many waivers are signed by property owners or developers who immediately sell the property after development. The liability for street improvements is passed on to the buyer, although the buyer is probably not aware of what that liability is and the price of the property may not reflect the future liability.

Lack of disclosure and understanding about what waivers mean.

Waivers are recorded on the property, meaning that they show up on title reports. However, there is little understanding in the Realtor, Title, and Mortgage industries of what these waivers mean, especially in terms of potential costs. Waivers are not required to be disclosed beyond what is recorded on the property's title, and the title report language itself does little to call attention to the waiver. There can even be a disincentive on the seller's part to adequately share with the buyer what the waiver might mean.

Resentment of later property owners that they are bound by Waivers and have no say in process.

When waivers are used on projects, property owners with waivers feel shut out. Property owners without waivers can also be caught unaware of the existence of waivered properties that could force the formation of an LID. Waivers poison the democratic aspect of the tool by counting waivered properties in support, regardless of the property owners' feelings regarding the project, leaving the property owners resentful of the process and even more determined to oppose the LID.

5.0 RECOMMENDATIONS FOR THE LID PROCESS

The recommendations for the Local Improvement District Redesign Process have resulted from extensive conversation with property owners, neighborhood residents, interested citizens, and City staff. Many of the recommendations are straightforward, focusing on improving the LID process itself and how the City and community can work more effectively and collaboratively. Some recommendations, however, lead to significant discussions on the appropriate role of the City in providing local infrastructure.

In essence, the recommendations contained within this report can be broken down into two sets. The first set, presented here in Chapter 5, lays out recommendations for improving the LID process, design options and flexibility, expanded maintenance options on substandard streets, local infrastructure planning, and working with waivers of remonstrance. Some of these recommendations are very straightforward, while others signify a departure from past policy on local infrastructure.

The second set of recommendations, identified in Chapter 6, deal primarily with funding local infrastructure improvements. This set of recommendations has been separated from those in Chapter 5 because of the additional work required to arrive at an equitable funding mix for local infrastructure and the availability of funding to provide public support for these projects. In essence, the second set of recommendations is intended to begin a conversation on how to make significant progress in improving the City's local infrastructure.

5.1 FIXING THE TOOL – RECOMMENDATIONS FOR THE LID PROCESS

The primary issues related to the LID process - cost, design flexibility, the desire by property owners and the community to have a greater say in the process - can all be addressed through changes to the LID process. For the most part, the following recommendations related to the LID process would result in lower costs to the City and property owners while at the same time providing a more healthy environment for discussing and forming LIDs.

While the changes in this section address the initial task of improving the LID process laid out for the redesign effort by Council, alone they are not enough to generate widespread property owner interest in using LIDs to improve local streets and sewers. To begin to make significant progress in reducing the City's substandard infrastructure inventory, additional public subsidy is required. Subsidy options are described in Chapter 6.

For changes to the LID process itself, the recommendations are organized around the basic structure of the process.

5.1.1 Roles and Responsibilities

The current LID process does not provide a clear or consistent picture of appropriate roles and responsibilities for the numerous steps involved in forming a LID. At times, this inconsistency has led to confusion in the community and on City Council, as participants try to figure out what set of information or which response is the correct one. In general, there are a few areas where roles and responsibilities within the LID process can be clarified, and those are presented below. Also, recommendations for specific steps or procedures within the LID process, which are presented later in this chapter, will be accompanied by the responsible party for that step.

Definitions

Auditor's Office - The Assessments and Liens Division within the City Auditor's Office is responsible for activities associated with LIDs, including recording liens on property, managing the City's Lien Docket, and managing the LID construction fund.

Sponsoring Bureau - The Bureau that is assuming primary responsibility for a public works project. For example, on a local street improvement, the Portland Office of Transportation would be the sponsoring bureau; for a sanitary or storm sewer project, the Bureau of Environmental Services; for a water main the Bureau of Water Works.

Commissioner-in-Charge - The City Commissioner responsible for the Sponsoring Bureau.

City Council - A quorum of Commissioners able to act upon LID procedures filed with the Council.

Responsible Engineer - Typically, the Engineer ultimately responsible for the work of the Sponsoring Bureau.

Roles and Responsibilities

Table 5.1 shows the primary roles and responsibilities related to the LID process, and the proposed changes to some of these roles. As part of the reassignment of many of the LID responsibilities to the Sponsoring Bureaus, the creation of the LID Administrator position is recommended. This position, as well as the reassignment of responsibilities, are outlined in more detail below.

LID Administrator

The position of LID Administrator is new to the City. The concept behind the creation of this position is to centralize responsibility and accountability for the LID process and provide a consistent approach for all LIDs that the City is involved in.

The LID administrator fulfills two primary roles in the LID process. First, the administrator is a facilitator between property owners, City staff, and neighborhood residents as a proposal is crafted for forming an LID. In this role, the adminstrator is responsible for ensuring that all voices are heard and for reaching agreement between the various parties, with the ultimate goal being a project proposal that property owners can support via a petition and the City can support via Council action.

The second role that the LID administrator fills is that of an advocate for the project that the property owners have agreed to. Once agreement is reached between the property owners and the City Council as to the scope, assessment method, boundaries, and cost of the project, the LID Administrator is responsible for delivering that project as agreed. In a sense, the Administrator is the defender of the agreement that the property owners signed a petition for.

Task	Current Responsibility	Proposed Responsibility
Lien Docket	Auditor's Office	Auditor's Office
LID Construction Fund	Auditor's Office	Auditor's Office
Financial Responsibility for Project	Unclear - Auditor? Sponsoring Bureau?	Sponsoring Bureau*
Documentation	Auditor, Sponsoring Bureau	Sponsoring Bureau*
Ordinances/Resolutions	Auditor	Sponsoring Bureau*
Notification	Auditor, Sponsoring Bureau	Sponsoring Bureau*
Remonstrances	Auditor, Sponsoring Bureau, Commissioner-in-Charge	Sponsoring Bureau* and Commissioner-in-Charge
* LID Administrator responsible for reviewing and approving Bureau work on LID process.		

Table 5.1 - Roles and Responsibiliites

The LID Administrator should be housed as close to the project work as possible. Because the bulk of LIDs are initiated for street improvements, it is recommended that the position be placed in the Project Management Division in the Bureau of Transportation Engineering and Development, Office of Transportation.

The primary function of this position is to ensure that the LID process is used according to City regulations and policies. The LID Administrator should be considered a project "owner" for street improvement projects. Specific duties of the Administrator include:

- Working with interested property owners and neighborhoods on the creation of LIDs
- Running the LID process on all projects
- Reviewing and approving all information transmitted to the City Council or Auditor's Office related to LIDs
- Proactive outreach to neighborhoods and property owners to share information about the Local Street Improvement Program;
- Periodic review of LID policies and procedures

Lien Docket - Auditor's Office

The City's Lien Docket is currently administered by the City Auditor's Office. The Lien Docket essentially records and tracks all of the City's liens on property, including assessments for nuisance abatement, sanitary sewer lines and connections, system development charges, and local improvement districts. LID assessments actually make up a very small portion of the total number of liens that the City tracks.

Because of the value that the City receives from having a centralized system for lien tracking and documentation, the Lien Docket should remain in the Auditor's Office. However, it may be worthwhile to examine whether the Auditor's Office is the appropriate home for the Lien Docket, and whether the administration of the docket could more appropriately be carried out in another City office.

LID Construction Fund - Auditor's Office

Currently, the Auditor's office administers the LID Construction Fund, a $12 million line of credit that pays for project costs associated with LIDs (including engineering and administration). Like the Lien Docket, the Construction Fund serves a number of different City Bureaus, and having a centralized source of credit ensures a higher level of efficiency than multiple funds run at a bureau level. Because of this, the LID Construction Fund should also remain within the Auditor's Office.

Financial Responsibility - Sponsoring Bureau

Because the recommendations here leave the Lien Docket and Construction Fund in the Auditor's Office, there is a certain amount of liability that the Auditor's Office assumes for projects and accounts that pass through the office. However, the Auditor's Office, in a sense, is only providing service to other bureaus in this respect, and the bureaus initiating the work should be responsible for any liabilities that arise out of the Construction Fund or the Lien Docket.

To implement this, a Letter of Agreement should be drafted and implemented between the Auditor's Office and the Bureaus utilizing the Lien Docket and Construction Fund for LIDs. Key elements of the Letter of Agreement should include the Sponsoring Bureaus accepting financial responsibility for delinquencies, foreclosures, and other liabilities against both the docket and the fund. Consideration should also be given to extending this Letter of Agreement to cover assessments other than LIDs that are entered into the Lien Docket.

Documentation/Information - Sponsoring Bureau

With the shifting of financial responsibility of LID projects to the Sponsoring Bureau, it is reasonable to suggest that the bureaus should also take on the responsibility of ensuring that the information generated on LIDs is correct. The Sponsoring Bureau, as a result, will need to defend the information submitted to Council and set up procedures for validating that the information being submitted to Council or to property owners is correct.

Ordinances/Resolutions - Sponsoring Bureau/ Commissioner-in-Charge

Currently, ordinances and resolutions related to the formation of an LID are sent through the Auditor's Office and, in fact, are filed on the Council agenda under the Auditor's docket. The responsibility for filing these ordinances and resolutions should be taken on by the Sponsoring Bureau, therefore ensuring that the ordinances and resolutions will be filed through the appropriate Commissioner rather than the Auditor. This will give the public in general and property owners specifically a greater understanding of which bureau and/or Commissioner is ultimately responsible for the projects being considered.

Notification - Sponsoring Bureau

Notification on LIDs currently comes from two main sources - the Auditor's Office and the Sponsoring Bureau. This dual notification leads to confusion among property owners as they wonder who they should contact about project or LID issues. In order to minimize this confusion and avoid internal conflicts, correspondence and notification to property owners should come from one source within the City. In this case, it is recommended that the Sponsoring Bureau be responsible for this notification.

Remonstrances - Sponsoring Bureau

Following on the recommendation that the Sponsoring Bureau be responsible for notification, it is also logical that the Sponsoring Bureau be responsible for receiving feedback from that notification. To that end, Remonstrances and other property owner comments should be returned to the Sponsoring Bureau directly, and the bureau would be responsible for supplying this information in a timely fashion to City Council. In effect, this cuts out the Auditor's Office as a "middleman" in the process and allows staff more time to respond to or rectify property owner complaints.

5.1.2 Project Initiation

There are three main ways in which an LID can be initiated. In all of the cases, it involves contact between the Sponsoring Bureau and affected property owners. However, the context in which that contact is handled is critical in terms of the attitudes of both staff and property owners as they explore the potential for an LID.

The way in which LIDs are initiated can greatly affect the outcome of a project. Of the forms described here, the one with the most potential to result in a positive process is the idea of a Target Area or Local Infrastructure Plan. This approach is the preferred method for initiating a LID discussion with a neighborhood and property owners.

5.1.2.1 Proactive Outreach

For most LIDs today, the City is in a fairly reactive mode, waiting for property owners to contact staff and express interest in street and/or stormwater improvements. Regardless of what other ways there are to begin working with property owners on LIDs, this will always be one of the primary ways that the City can learn of interest in doing a street improvement.

Before moving projects into the Pre-LID phase, staff currently asks property owners to talk to their neighbors about the cost of improving a street using general cost figures (e.g., $2.50 per square foot of property). If the property owner reports back that there seems to be interest on the street in moving forward, staff begins working on the petition package for the project.

A better way to do this would be for staff to help the initial contact person with outreach, perhaps contacting the other property owners and sending along information on the LID process, financing options, and any other material that may be helpful for property owners to understand the whole picture. Holding a follow-up meeting or doing a quick telephone survey of the neighborhood could then help to determine whether there is really interest in the neighborhood, and would at a minimum provide another forum for sharing information with property owners on their options for local infrastructure improvements or maintenance.

5.1.2.2 Development/Waiver Driven LIDs

Some LIDs are initiated as a result of new or infill development occurring in a neighborhood. These LIDs are always problematic, since they tend to involve waivered properties (see 5.3, Waivers) and the introduction of change in the neighborhood.

However, there is no reason why staff cannot work positively with a neighborhood to determine the best way to accommodate infrastructure improvements and to come up with a solution that is fair while at the same time minimizing the impact on existing residents and property owners. To a certain degree, the City has an obligation to pursue most of these projects, since there is often enough implied support through waivers to legally form a district. While the recommendation to proceed may not come out of a process of working with property owners in these cases, there may be a number of opportunities to create a fair, workable plan that accommodates development while protecting existing property owners.

5.1.2.3 Target Area/Local Infrastructure Plan

This concept is described later in 5.5, Local Infrastructure Planning, but in general the process would require an intensive planning effort with specific neighborhood areas. The planning effort would determine the desired improvements, a plan for coordinating these improvements as efficiently as possible, an equitable and supportable funding scheme, a schedule, and some method of prioritization. Following the completion of this plan, staff could then begin to solicit support for projects, and move to fulfill those areas where there is strong property owner support.

5.1.2.4 Financial Feasibility

As a practical matter prior to initiating the Pre-LID process, the Sponsoring Bureau shall be responsible for performing a financial feasibility test for the project. The bureau should research properties within the potential district utilizing the County tax records and determine what the market value is for each property. Also, back taxes and unpaid government liens should be noted and recorded.

Past policy related to the financial feasibility test held that the Assessed Value to Proposed Assessment ratio should not exceed 3:1; in other words, for every dollar of proposed assessment, there would need to be at least three dollars of assessed value according to the County's tax rolls. It is more reasonable, after the passage of Measures 5 and 50 and the resulting changes in the State's property tax calculations, to use Market Value as a measurement, since this number will most likely be closer to the real value of property.

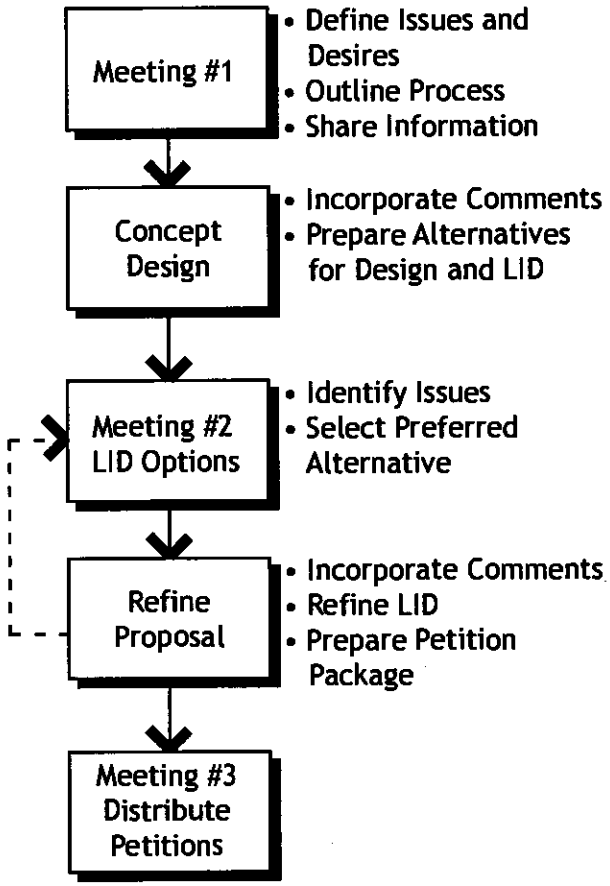


Figure 5.1 - Pre-LID Involvement Process

The same ratio of 3:1 should continue to be held for the financial feasibility test, comparing the county's statement of Market value to the proposed assessments. It is possible to proceed on a project that has less than a 3:1 ratio, especially if it is likely that the market value for property will exceed 3:1 once it is served with infrastructure. However, exceptions to the 3:1 test must be approved by the Responsible Engineer of the Sponsoring Bureau, as the bureau will be responsible for any liabilities that may result from the project.

5.1.3 Pre-LID

The most important component of the LID process is the collaboration between City staff and property owners leading up to the signing of petitions. In the past, however, this process was treated less as a collaboration, as a certain emphasis was placed on quickly generating an estimate, conceptual design, district description and assessment methodology. If there was debate about boundaries or methodology, it usually occurred between the Sponsoring Bureau and the Auditor's Office, and not with the property owners.

In essence, the underlying theme of the improved Pre-LID process comes back to creating a collaborative, meaningful process with the property owners. Engaging property owners in discussions about project design, assessment methodologies, project boundaries, costs and other relevant issues is critical if their support is ever desired.

Creating a more collaborative process will require a higher level of funding for LID Development than is currently budgeted. However, the goal of this more intensive process is to increase the success rate, and effectively lower the cost that the City incurs for every successful LID that is initiated.

5.1.3.1 Public Process/LID Definition

If there is one common element that ties together a number of different recommendations contained in this report, it is an improved public process during the Pre-LID phase of the LID process. While the Pre-LID phase in the past amounted to a quick engineering study, with little community involvement in decision making, the process envisioned here relies upon a dialogue between staff and property owners in order to gain agreement on a LID proposal. The Pre-LID phase must include a thorough discussion of issues as diverse as street design, assessment methodology, and the extent of the desired improvements.

While each Pre-LID should be approached with regard to the unique aspects of the community involved in the discussion, there is a general outline (Figure 5.1) that should prove to be effective in leading staff and property owners to agreement on a LID proposal.

5.1.3.2 Petition Package

The petition package contains all of the information that the property owner needs to make an informed decision on supporting an LID. The primary purpose of the petition package, beyond providing a petition for property owners to sign, is to make the project as clear and understandable as possible. Without this level of clarity, there is little chance that a property owner will sign a petition given the level of uncertainty likely to be present.

Certain elements are required as part of the petition package in order to ensure that the LID will be legally valid. These elements include:

- The estimated or guaranteed cost to each property owner
- A map showing the boundaries of the district, including any waivered properties and the extent of the improvements to be undertaken
- A petition describing the general improvements
- A summary of the project showing all of the affected properties and displaying the recommended assessment methodology, the amount of each property to be assessed, and any other information that would affect the final assessments to a property or properties within the district

Other information, while not required from a legal standpoint, is also helpful to the property owners as they consider forming an LID. This information includes:

- A description of the City's lien policy
- Estimated monthly costs for 5, 10 and 20 year contracts based on an assumed interest rate
- A project schedule, including the anticipated date for a City Council hearing on the LID
- A cover letter summarizing the proposal for the LID (including the scope of the project as well as the relevant elements of the LID itself)
- Contact information for the LID Administrator and, if applicable, project designer

5.1.3.3 Petition Circulation

Petition circulation should commence at the last meeting of the Pre-LID involvement process. At this juncture, staff will be able to present the petition in an unbiased light, and ensure that common questions are answered in front of as many petitioners as possible. Basic information on the LID process, scope of improvements, cost estimates, and other relevant data should be assembled and sent along with petitions to be mailed or distributed by the chief petitioner. The chief petitioner, while often enthusiastic, must be counseled not to oversell or mislead other property owners, and that by doing so he or she may jeopardize the LID should it come to Council.

5.1.3.4 Support Evaluation

Currently, support is evaluated per City Code based on the square footage of property owned. Similarly, objections and remonstrances are measured in the same way. Support should be measured based upon the assessment methodology selected for the LID, ensuring that those with higher assessments have more say in the outcome of the process.

Measuring support in this manner will require a change in current policy and code. 17.08.040 of the City Code states:

> "Local improvement proceedings are instituted whenever a petition by property owners for the construction of a local improvement, containing the signatures of a majority of the area which will probably be benefitted by the proposed improvement, has been filed with the Responsible Bureau..."

City Code should be changed to define how support is measured based on the assessment methodology used on the project. In other words, the greater the benefit a property derives (and therefore, the more the property pays), the greater say the property has in the matter.

5.1.3.5 Recording of Petitions

If the Time and Manner Hearing is not moved to an earlier point than normal in the process and does not appear to be forthcoming immediately, the recording of petitions with the County is strongly encouraged in order to provide notice of a potential assessment to purchasers of property within the district. Without this notice, petitions that are signed on properties that are transferred before the Time and Manner hearing cannot be considered valid unless the new property owner signs another petition.

5.1.4 Public Hearing

The most appropriate time for a public hearing on an LID proposal is early in the LID process. Currently, the only formal hearing is held at the consideration of the Time and Manner ordinance at Council. At that point in the project, design is nearly complete, a great amount of time and money has been spent by City staff on the project, and there is little financial incentive on the part of the City to back off or modify the proposal.

Given the other changes suggested for the LID process, it is entirely appropriate to hold a public hearing early in the process, immediately after a majority of support is attained. This hearing would function in a nearly identical fashion as the current Time and Manner hearing, with clear notification to property owners, a period for filing remonstrances and objections, and a response by the Sponsoring Bureau to comments received on the project.

City Code already contains an action item early in the LID Process - the Resolution of Plans, Specifications, and Estimate (P, S & E). This Resolution is passed by City Council in order to direct the Responsible Bureau to prepare plans, specifications, and a cost estimate for the LID proposal. In essence, the city is making a substantial commitment to a project when this Resolution is passed.

P, S & E is the most appropriate time and form for the City Council to provide direction based on the feedback that is received from property owners and the neighborhoods. In some cases, where costs are guaranteed, P, S & E can be replaced by a Time and Manner hearing (see 5.1.4.4 below).

By holding this hearing early in the LID process, City Council is able to hear the range of issues that are present on a project and provide direct feedback on the LID proposal before any substantial costs are incurred for a project. Also, by approving a project at the P, S & E hearing, Council would lock in the LID proposal - the scope of improvements, assessment methodology, boundaries, and potentially the cost to property owners - and allow staff to focus on efficiently producing the street design.

5.1.4.1 Notification

Currently, the Auditor's Office and the Responsible Bureau share responsibility for providing property owners with notification of LID proceedings. As discussed earlier, this notification should be handled by the Responsible Bureau through the LID Administrator. The key component of the notification is the letter of notice sent to affected property owners.

This information must contain, at a minimum, the estimated or proposed assessment to the property, a map of the district, a date and time by which comments are to be received, and a date and time when the proposal will be heard by Council. In addition to this information, it would also be helpful to include other information that helps describe the LID proposal. This would include a description of the scope of improvements, a spread sheet showing estimated assessments for each property within the district, a description of the LID proposal itself, including the assessment methodology used, the amount of public subsidy provided, and other pertinent information.

5.1.4.2 Comment Period

City Charter and Code provides for a remonstrance period where property owners may share their concerns, support, or objections to the LID proposal. The length of this period should be clarified to be a minimum of two weeks from the initial mailing of notices to the property owners. Current language is a little vague, stating that the LID formation hearing must be a minimum of two weeks from the mailing of notices, and that written remonstrances (comments) must be received at least a week prior to the hearing. Clarifying this language would require a minimum of three weeks between the mailing of notices and the P, S & E or Time and Manner hearings.

In addition to the length of this period, language should also be clarified so that comments are sent to the Commissioner-in-Charge of the Responsible Bureau rather than the Auditor's Office. The Commissioner-in-Charge is responsible for forwarding these comments to the LID Administrator for response in the form of a Report to Council (see below). This process works well with the Commissioner's current responsibility in the LID process, which involves introducing the Report to Council and introducing an amendment(s) to overrule the comments or modify the proposal.

5.1.4.3 Report to Council

Currently, the Responsible Engineer submits a response to comments received during the Remonstrance Period to the Commissioner-in-Charge a minimum of one day prior to the hearing. This report will continue to be submitted a minimum of one day prior to the hearing, except that the LID Administrator will be responsible for gathering internal feedback on the comments received, assembling the report, making recommendations on actions for Council to take, and submitting a copy of the report to the Commissioner-in-Charge, the remaining Council members, and the Council Clerk.

5.1.4.4 Early Time and Manner

If a guaranteed cost is given for an improvement, it is possible to move the Time and Manner hearing to this point in the process, immediately following the confirmation of a valid petition. At the earlier Time and Manner hearing, the scope of improvements should be set by City Council, similar to what is described in this section for the Resolution of P, S and E.. If, after Time and Manner passes and the project design is altered significantly, staff should check back in with City Council to confirm that the changes are appropriate and warranted. Property owners should be notified of this hearing in order to ensure that any comments can be heard.

5.1.5 Design

The area with the most potential to save costs in the LID process is during the design/engineering phase. In the past, a great deal of time and energy has been spent on public process during this phase, as staff and property owners continue to discuss overall street design issues. Specific performance measures are outlined in Chapter 5.5 below, and these measures can be achieved in large part by focusing the efforts of project designers.

5.1.5.1 Set Project Definition

With the lack of project definition in the past, designers often found themselves starting from square one with property owners once the design phase began. With the changes recommended here in the Pre-LID and Public Hearing phases, City Council will set the design for the street at the first hearing, providing clarity to both staff and property owners on what the ultimate street design will be. With this in place, it will be possible for the design team to focus on producing plans, specifications and estimates for projects without the distraction of unresolved street design issues.

5.1.5.2 Project Delivery Improvements

Besides the focus brought by early Council direction on LIDs, design and project management staff in both PDOT and BES are enacting measures to ensure that high-quality projects are delivered on time, within budget, and as scoped. This is an ongoing process of evaluation that should result in a higher level of service and lower costs for property owners.

5.1.5.2 Public Involvement/Notification

During the design phase, it will still be necessary to work with property owners on specific design issues. During this phase of work, a minimum of two, and preferably three meetings will be held to share project progress with property owners and receive feedback on site-specific design issues. If there are design changes resulting from technical considerations that represent a significant change (e.g., adding or deleting previously agreed-upon elements) from the approved design, the project staff should organize a meeting with property owners to discuss changes and to gain endorsement of project direction.

5.1.6 Time and Manner Hearing

5.1.6.1 Roles and Responsibilities

With the basic changes in roles and responsibilities outlined earlier in 5.1, much of the work previously performed by the Auditor's Office or shared between the Auditor and the Sponsoring Bureau will be taken on by the LID Administrator through the Responsible Bureau. This will include all notification relating to the hearing; the preparation and filing (through the Commissioner-in-Charge) of the resolutions and ordinances related to the hearing; the filing of appropriate information with the Auditor's Office in order to set up Preliminary Liens; and the preparation of the proposed assessments. The Auditor's Office will continue to be responsible for setting up and recording Preliminary Lien accounts once the Time and Manner ordinance passes.

5.1.6.2 Earlier Hearing Date

If a guaranteed cost is given for an improvement, it is possible to move the Time and Manner hearing to an earlier point in the process. At the earlier Time and Manner hearing, the scope of improvements should be set by City Council, similar to what is described in 5.1.4 above. If, after Time and Manner passes and the project design is altered significantly, staff should check back in with City Council to confirm that the changes are appropriate and warranted. Property owners should be notified of this hearing in order to ensure that any comments can be heard.

5.1.7 Bidding and Construction

The LID process uses public funding sources in a variety of ways to implement street improvements. For example, public funding is used to finance the construction of the project through the LID Construction Fund managed by the Auditor's Office, to pay for intersection and drainage improvements through the Office of Transportation, or to help offset facility upsizing through BES. In any of these cases, the use of public funds on the LID requires that the project be bid according to the purchasing requirements of the City and State.

There are some areas where the bidding process can be modified, however, to provide some benefit or peace-of-mind to property owners. These areas are outlined below as proposals or areas for further study.

5.1.7.1 Acceptance of Bids

Current City purchasing regulations require bids to be accepted if they are within 10% of the Engineer's Estimate for the project. While most projects do not exceed this 10% threshold, there are occasions where project bids do come in above that point. Currently, the City has the discretion to either accept or reject these bids, with no real process for feedback from the community.

On LIDs where costs are not guaranteed to property owners, the LID Administrator must be responsible for getting feedback from the property owners before any decision is made. Without a majority of property owner support, the project should either be rejected, rebid, or receive a higher subsidy level to bring the costs back down within the 10% threshold.

5.1.7.2 Alternative Contracting Methods

The low bid process is, by far, the most common bidding process used in the City today. With the exception of larger projects like the Central City Streetcar, which has a LID component to the project funding, street LIDs are bid through this process exclusively.

There has been some recent attention given to alternative bidding concepts for public works projects. For LIDs, there may be opportunities to use a process like design/build, where a contractor is responsible for performing all the required engineering as well as doing the construction. This may result in cost savings to projects as contractors determine the level of design they would require for themselves in order to build a street to City standards. Design/build would seem to make the most sense where there is less of a chance of unanticipated design or construction problems, thereby reducing the risk to the contractor.

5.1.7.3 Private Contracting/Permitting

Another possibility that should be studied further is the concept of forming LIDs for privately contracted and permitted street improvements. Because traditional street LIDs use public funds to finance the project (even though there may be no public subsidy to the project costs), these projects are required to go through the public bidding process.

An alternative to this approach would be to generate interest in the private sector (contracting and financing) to create street improvement projects. By allowing the LID process to be used on privately constructed projects, there is some potential to achieve costs savings by avoiding some City processes, especially those related to the creation of bid packages and the purchasing process.

In concept, there would still be a level of support that would need to be attained among affected property owners in order to move forward with the project. The City would need to continue to be involved in the LID process to ensure that the proposals are fair to the participants and that the costs passed on to property owners are appropriate.

This concept is most likely to be pursued if there is little to no public subsidy available for assisting property owners with LID costs. If funding levels are increased to the level recommended in this report (resulting in a cost to property owners at 50% of today's costs; see Chapter 6), it is highly unlikely that it will be possible to pursue this concept due to the use of public funds on LID projects. Also, it will be difficult or impossible to achieve savings of 50% through a private contracting process alone.

Until the funding recommendations for a Local Street Improvement program are made final, it is proposed here that the idea of creating a private LID model be shelved. If and when it becomes apparent that public subsidies are not a possibility, or if the demand for improvements outstrips the available public resources, this idea should be pursued vigorously.

5.1.8 Assessment Hearing

There are no substantial changes to the final Assessment Hearing other than the reassignment of responsibilities for this task. Like the earlier hearings in the process, responsibility for this hearing should be shifted from the Auditor's Office to the Responsible Bureau through the LID Administrator. Notification for the final assessments should be given through the Responsible Bureau, and comments received by the Commissioner-in-Charge and responded to by and through the LID Administrator.

As in the Time and Manner Hearing, the comment period for the final Assessment Hearing should be clarified as two weeks from the mailing of notices to the hearing date.

5.1.9 Ordinances and Resolutions

All ordinances and Resolutions related to the LID process are currently filed by the City Auditor, and appear on the Auditor's Council docket. In order to clarify responsibility and accountability for LID proposals, these Council documents should instead be filed through the office of the Commissioner-in-Charge of the Responsible Bureau, and placed upon his or her docket.

5.2 LID FINANCING

One of the most positive aspects of the LID process is the financing offered to property owners at the back end of the process. Regardless of credit (loans are secured by property), property owners can finance their assessment at the City's bond rate plus a percentage for administrative costs. This results in an interest rate well below what could be found on the open market.

Even with the advantages of the City financing program, there is still room to expand the options that the City can offer property owners at the end of the LID process. Specifically, financing programs can be implemented that help minimize impact on low income property owners and/or seniors. Also, it is possible to structure financing that allows the timing of development to occur at a more appropriate pace.

The most effective financing schemes also require funding. Chapter 6 describes these in more detail, but there are still some programs that can be implemented short of additional funding.

Portland Median Family Income (MFI) Eligibility Levels for 100% Subsidy on HCD Projects	
Family Size	50% MFI
1	$18,780
2	$21,500
3	$24,170
4	$26,830
5	$29,000
6	$31,170
7	$33,300
8	$34,460

Table 5.2 - Median Family Income and Deferral Program for 2000

5.2.1 Deferrals

One way to help property owners deal with LID assessments is to allow them to defer all or part of their costs to a more appropriate time. For many, this means putting payments off until the property is sold or developed. The desire for deferrals can be driven by two means - ability to pay, and timing of development. These require different approaches, and are outlined in more detail below.

In general, it is preferable to accommodate deferrals by funding them. Essentially, the sponsoring bureau would be the most likely source to do this, and the program would essentially work by having the bureau reimburse the LID Construction Fund and assuming the lien for the property being deferred. However, there may not always be funds available to cover these deferrals, so it may also be possible to structure deferrals within the bond issues themselves.

Currently, the City will typically sell a $6 - 8 million dollar assessment bond each year. Given this size of bond sale, it is estimated that as much as $400,000 of deferrals can be integrated into the bond sale. However, if the deferrals are structured into the bond, they will have to carry the full interest cost. Also, the assessment that is deferred will need to be limited to 10 years maximum, and 5 years preferably, in order to ensure that the account provides cash flow back to the bond. Even with this potential capacity within bond sales, it is still preferential to fund deferrals, and restructuring the bonds should be utilized as a last resort for deferrals.

Regardless of the type of deferral offered or the way in which it is funded, the City will require the assessment to be paid, or a loan contract entered into, upon sale, transfer, or development of the property assessed. In some cases, banks or mortgage companies may require repayment of the deferral if refinancing or property transfer occurs.

5.2.1.1 Low Income Deferrals

In order to offer any significant help to low income property owners facing LID assessments, adequate funding is an absolute necessity. It is not possible to offer financial assistance to low income property owners through the bond structure alone.

In general, the program envisioned for low income property owners would set up a graduated set of interest rate subsidies and allow the assessments to be deferred up to 20 years, renewable by the property owner every five years. Interest rate subsidies should be based in relationship to the Portland region's Median Family Income (MFI).

In order to be eligible, property owners must reside at the property being assessed. Regardless of income, property owners would pay some amount of interest on the deferral. Property owners at 50% or below MFI will receive a 4 point discount on the City's bond rate (including the administrative bump). The discount decreases as the MFI increases: at 50 - 60% MFI, a 3 point discount is offered; 60 - 70% = 2 points, 70 - 85% = 1 point. Table 5.2 demonstrates how this program would work in 2000.

5.2.1.2 Large Lot/Development Deferrals

In some cases, the timing of an LID can be problematic for property owners looking to develop property. Most often, these property owners can be in a bind because the property is not valuable until infrastructure is in place, but their ability to pay for the infrastructure is limited. Allowing improvements to proceed while delaying the payment of the assessment can help bridge these gaps and enhance the value of underdeveloped property.

In order to qualify for a large lot or development deferral, a property must be vacant or be developed below 25% of the potential allowed by the base zoning. There are two ways in which these deferrals can be financed:

Bond Sale - If public funding is not available to assist in financing deferrals, the loan contracts can be included in the City's bond sale that covers the project. On these deferrals, a five year limit is proposed, after which the assessment must be paid or a contract taken out to pay in installments. The deferral would be carried with full interest costs. Currently, there is the capacity to annually defer between $300,000 and $400,000 of these types of contracts given the current frequency and size of the City's bond sales.

Deferral Fund - If public funds can be provided to the LID program, this money can be set aside into a fund and used to cover both the large lot deferrals and the low-income deferrals. The fund would essentially "own" the deferrals, and property owners using the large lot deferral could be charged a set simple interest rate for the life of the deferral. The deferral fund would be repaid as properties are sold or developed, although other triggers (e.g., refinancing) may trigger repayment due to the requirements of mortgage companies. Unlike the constraints given by the bond sale, these deferrals could carry for more than five years, although they would need to be renewed by the property owner every five years.

5.2.2 Private Financing

Staff should continue to explore potential partnerships with private lenders to determine interest in private sector financing of LIDs. Potential also exists for private lenders to fund construction of LIDs, allowing contractors to build improvements via permit rather than through the City's bid process.

5.3 ASSESSMENT METHODOLOGY

One of the issues that was the focus of a great deal of discussion at the beginning of the LID Redesign Process was the method by which costs are spread on LIDs. As more research was completed and community issues more clearly defined, it became obvious that the debate over assessment methodology was a symptom of larger problems with the process. However, choosing an appropriate assessment methodology can make the difference in whether an LID is supported or not.

There are only two recommendations that are being made related to assessment methodology. First, the assessment methodology should be determined on a case-by-case basis to ensure that an LID proposal spreads costs in the fairest and most equitable manner. The second recommendation is that assessment methodology should be one of the elements thoroughly discussed as part of the Pre-LID process (see Chapter 5.1.3).

Beyond these two recommendations, the most common or promising assessment methodologies are summarized below. For local residential street LIDs, the most equitable methods are Square Footage, Equivalent Dwelling Units (EDU), and Square Foot/EDU. These methods typically provide the best measure for the benefit that a property receives from a street and storm sewer improvement based on the amount of current and potential development that the property supports.

5.3.1 Square Footage of Property

The most common means for assessing property for local streets is to base the assessment on the square footage of property owned. In general, this method has been seen as an effective way to describe benefit for three reasons. First, Portland's zoning utilizes square footage as a measure for calculating the development potential for a site. So, for an area zoned R5 (minimum 5000 square foot

lots), a 10,000 square foot lot would carry twice the assessment of a 5,000 square foot lot since it has the potential to develop as two lots under current zoning.

A second reason that square footage can be effectively used is that it can diminish inequities often seen in a frontage foot methodology, where flag lots would not be assessed at a similar rate to standard lots, even though the number of units on each parcel may be equal and the amount of use generated by these sites would be equal. In these cases, square footage tends to capture lots that are using the improvement to the same level as other lots.

The third reason, which has become less compelling as on-site stormwater standards have been strengthened, is that larger sites tend to contribute more stormwater to the public storm system. In cases where significant quantities of stormwater must be handled from adjacent properties, square footage can help capture the benefit that these properties receive.

5.3.2 Equivalent Dwelling Units

A relatively new idea for assessment methodology was generated as a result of some failed LIDs in 1998. Rather than basing an assessment solely on square footage, the Equivalent Dwelling Unit (EDU) method attempts to more closely link the assessment to the true development potential of a property. In this case, a 5000 square foot property and an 8000 square foot property in an area zoned R5 would be assessed the same amount, since only one residence would be allowed on either site. However, a 5000 square foot property down the street that is zoned R2.5 would be assessed twice that of the other two properties since there could potentially be two residences on that site.

This method is effective in minimizing the extra costs that some property owners would pay for having a larger lot than allowed as the minimum under current zoning. Also, this ties the assessment to the amount of potential use that a site will generate for a street.

One drawback to this method is incorporating nonresidential uses into the mix. It is possible that commercial or institutional properties could be assessed based on trip generation (see below), but mixing methodologies could result in skewed assessments. In these cases, it may be more effective to apportion costs between residential and non-residential at a gross level using square footage, and breaking down the residential portion by EDU's after that.

5.3.3 Square Foot/EDU

The Square Foot/EDU method is a hybrid of the Square Footage and EDU methods described above. By averaging the assessments that would be returned using Square Foot and EDU, this method may prove useful for neighborhoods that have a mix of stable, fully developed properties and vacan or underdeveloped properties. By using this method, property owners who live on an underdeveloped property may feel less burdened, especially if they are not planning on redeveloping the property in the forseeable future.

5.3.4 Frontage Foot

Basing assessments on the frontage of property owned is the most common alternative to the square footage method. In most cases, frontage foot has been used when lot widths and depths have been fairly consistent, or when the improvements are largely of a frontage nature (e.g., sidewalks). On some sidewalk projects, assessments can be made based on the width of the sidewalk times the frontage, accounting for differences in sidewalk width.

One problem to avoid with the frontage foot method is the inclusion of flag lots or excessively deep lots in a district using this method. As mentioned above, these types of lots can benefit as much as, or more than other lots on a street that are considered more "standard." Other methods which consider the amount of use that these sites demand on the street (Square Footage, EDU's, or Trip Generation) would be fairer to utilize. The Frontage Foot method is not typically a fair method for use on residential street improvements.

5.3.5 Equal Share

Of the methods listed here, Equal Share is the one that is most commonly believed by property owners to be the method used for spreading costs. Because of the inequities caused by lots of different shapes and sizes, this method is rarely, if ever, used on street LIDs. However, it can be utilized for simplicity's sake on projects where lot sizes are consistent.

5.3.6 Development Requirements

Development-driven LIDs have focused intense scrutiny on assessment methods used for street improvement projects.. These projects are often problematic due to the feelings of existing property owners towards new development and/or the improvement of the street. In these cases, a property developer has initiated the LID process, usually as a result of being required to improve the street frontage along the development.

For some projects, it may be possible to determine the costs of the development's frontage improvements as a stand-alone piece, and assess those costs directly to the property developer. The remaining costs could then be spread to the other properties in the district through the selected assessment methodology. In these cases, with agreeable property owners on both sides of the equation, benefits can be realized in a couple ways. First, because all of the properties benefit from the improvement, they all help pay some amount to make the improvement. Second, more costs are shifted to the new development where cost recovery is an immediate option for the property owner. If the cost shift is reasonable, this can be an effective way to broker a deal between property owners in a district.

5.3.7 Graduated Districts

In some cases, it may be desirable to look beyond the property owners immediately adjacent to an improvement to pay all of the costs. This is especially true for improvements that serve a larger community. In the case of streets, this means not only arterials and collectors, but also local streets that may serve as primary routes in and out of neighborhoods. This approach may also be useful for stormwater improvements that benefit a larger watershed than the street improvement district.

The most likely scenario is one that assesses the most costs to property owners adjacent, and then smaller amounts the further one is from the improvement. However, this approach can be problematic, since property owners away from the improvement do not often see the personal benefit of the district and are not likely to endorse it.

5.3.8 Exemptions

There are a number of cases by which all or part of a property should be exempted from assessment. In all of these cases, the premise for allowing the exemptions is that the property exempted would not benefit from the improvement. Specific cases where exemptions to all or parts of a property would apply may include, but are not limited to:

- Environmental protection zones
- Undevelopable property (e.g., zoning or regulations which preclude development or use of property; physical constraints that make access to improvement impossible)
- Large lots with access to other public streets

In cases where an entire property may be exempted because of zoning or other restricted use, the City may also benefit from not placing an assessment on the property because the property value of these parcels is often lower than the proposed assessment. When this occurs, there is little motivation on the part of the property owner to pay off a lien, resulting in a potential foreclosure.

5.3.9 Discounts

Common practice on past LIDs was to discount corner properties that have already had one frontage improved. This policy should continue as in the past, providing a 25% discount to these corner properties. If neither of the frontages are improved, the lot should pay 100% of the assessed costs.

Another situation that may call for a discount is where zoning or other regulations substantially restrict the development of a portion of a site (e.g., an environmental conservation zone), but that portion of the site is still valuable from an overall site development standpoint (e.g., utilizing that area of the site for building coverage or landscape requirements). Discounts can and should be considered in these and similar cases.

5.4 DESIGN FLEXIBILITY

One of the areas that receives constant interest from property owners and the community is the design of local streets. Besides the impact of design on the character of their property and neighborhood, property owners are also interested in keeping street improvements as affordable as possible. In reality, these are two distinctions that must be kept separate in the discussion of street design.

For property owners interested in the affordability aspect of street design, there is often less concern about the effect of street design on neighborhood character. In these cases, altering design standards may not be the most effective solution to addressing cost concerns, since the bulk of the costs of street improvements lie in the pavement and storm drainage elements. If cost were not an issue, many property owners would opt for a full improvement, including sidewalks and street trees.

However, there are many property owners and community members interested in finding solutions they feel are appropriate for their neighborhood or street. In some cases, these concerns are driven by the impact of the street on property, vegetation, slopes, or other physical features. In other cases, and not mutually exclusive, is concern over the impact of additional impervious surface on stream health.

The design of street improvements as part of LIDs can and should incorporate a greater amount of involvement from property owners and the surrounding neighborhood. To that end, a toolbox of design options was generated that would be applicable in determining the design of a street through the LID process.

There are a few assumptions built into the toolbox. First, it is assumed that these standards, when implemented on a street, would result in acceptance for maintenance by the City consistent with existing maintenance policies. This means that the pavement, curbs (if applicable) and storm system would be accepted, while the sidewalks and street trees would be maintained by the property owner.

Another assumption is that the toolbox is set up for street improvements. However, the toolbox does not preclude improvements like a sidewalk or bike connection, where no street is desired by the property owners or neighborhood.

The last assumption is that there is more work required on alternative materials for street paving. There was a great deal of interest shown by both the community and staff in researching porous paving materials in order to minimize stormwater issues on street improvements. A specific recommendation is made that the City should pursue further study into these materials, and implement and test these improvements in the field.

The options presented here are intended for use on LIDs, where there is a public process that evaluates design alternatives and selects a preferred alternative derived from City, community and property owner desires and concerns (see 5.1.3, Pre-LID Process, and 5.6, Local Infrastructure Planning). In some cases, the selected improvement may represent an interim step leading to a more complete street design; in other cases, the preferred alternative would be seen as the final preferred condition of a street.

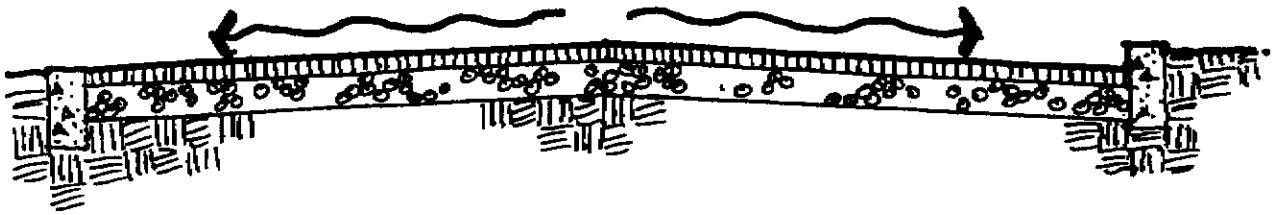


Figure 5.2- Crown Section

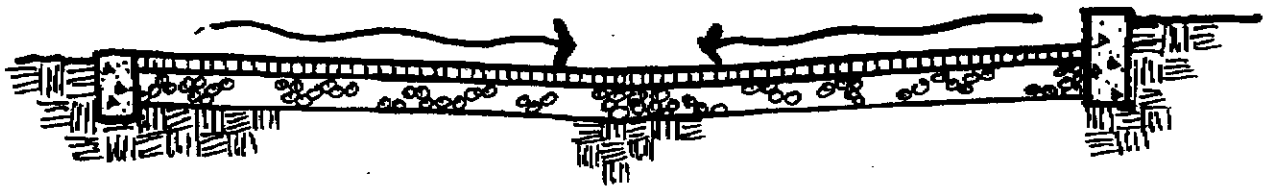


Figure 5.3- Valley Gutter

Figure 5.4 - Shed Section

5.4.1 Roadway Drainage

There are only three real options for dealing with how water will flow from a roadway surface to some sort of drainage collection. The most common is to construct a crown section (Figure 5.2), which sheds water from the center of the roadway to the edges. The reverse, called a valley gutter (Figure 5.3), takes water from the edges and directs it in towards the center of the roadway. A shed section (Figure 5.4) is the third option, draining water from one edge across the street to the other.

While all three are possible, there are some considerations that must be given to using the valley or shed sections. On a valley section, debris is much more likely to accumulate at the center of the roadway where stormwater is conveyed. Also, during cold periods, ice can form in the driving area, rather than the parking areas as occurs in the crown or shed sections. For both the valley and shed sections, it may be likely that a crown section will need to be used closer to intersections with improved streets, since they will most likely have a crown section.

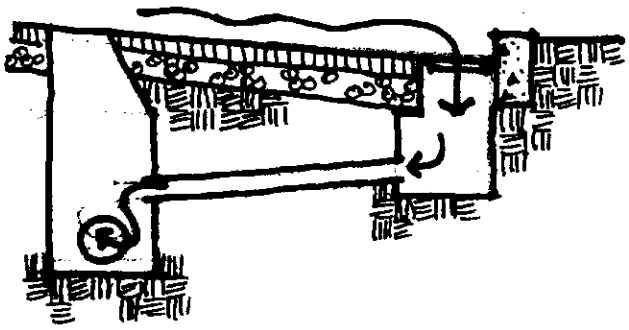


Figure 5.5- Catch Basin and Inlet Lead

5.4.2 Stormwater

Because paving a road increases stormwater runoff, and improving streets requires that stormwater be collected and diverted from private property, water must be collected and conveyed to an acceptable disposal point. Again, there are few real options for how this can occur within the right-of-way. Figure 5.5 shows a catch basin, the most common way of collecting water at the edge of the roadway. Depending on soils, the water is either carried through an inlet lead (pipe) to a sump or a storm sewer line.

The alternative to collecting stormwater through catch basins is to keep the water on the surface and drain it in an open system. This can be accomplished either through the use of a ditch (Figure 5.6) or a swale (Figure 5.7). In either case, these would be found at the edge of the road, and would most effectively be used with a shed or crown roadway section. The difference between a swale and ditch is in the cross section, as a swale has a wider, flatter bottom.

Figure 5.6- Ditch Section

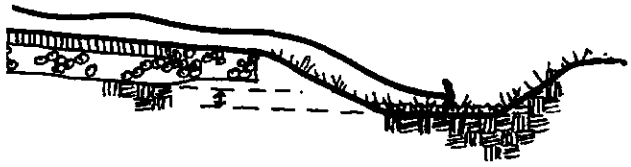


Figure 5.7- Swale Section

The potential advantage for using a swale is that it can also serve as a water quality device, removing sediment and pollutants from stormwater as it flows through the swale. In order for this to be accomplished, the swale must be planted with grass, and the grass height maintained between 2 and 3 inches in height. Alternatively, it may also be possible or desired to vegetate these swales with native plant materials that thrive in wetter conditions. Also, the running slope (the steepness of the street running longitudinally) must be fairly flat - 4% or less - for the swale to be truly effective as a water quality facility.

Both ditches and swales must be deep enough to ensure that the water level during storms would be below the bottom of the roadway base. This depth is necessary to prevent water from moving into the roadway base and weakening or damaging the street. Also, ditches and swales require culverts at each driveway crossing, and would likely require ongoing maintenance by the adjacent property owner (mowing, debris cleanup) in order to be effective and attractive.

Curbs can be used in conjunction with swales or ditches, providing there are occasional openings in the curb to allow water to reach the swale from the street. In some cases, a full curbed section may be preferable to a swale or ditch because of the minimum width required to accommodate these facilities - 6 - 8 feet for ditches, and 10 - 14 feet for swales.

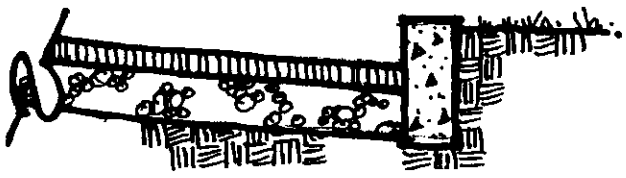


Figure 5.8- Standard Curb Section

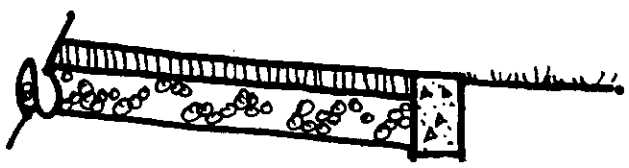


Figure 5.9 - Partial Curb Section

5.4.3 Curbs

As described earlier in the Chapter 4, curbs provide a range of benefits on a street - edge definition, water collection, protection of the roadway surface and base. However, curbs also pose a problem in that they concentrate stormwater, requiring that water to be collected and disposed of properly.

There are three basic options for the design of the roadway edge, as shown in Figures 5.8 - 5.10 - a full curb, partial curb, or no curb. An intermittent curb, which has openings at certain intervals to allow water through to a swale or ditch, is also a possibility for use.

Using a partial curb is highly preferable to having no curb at all. While a partial curb only reaches up to the surface of the street, it provides the important function of protecting the roadway edge and base from unraveling while allowing water to flow unimpeded to a ditch or swale. While not likely to result in significant cost savings for construction, it will provide significant maintenance savings in the long-term and my help to gain the support of property owners for the street design and LID.

When considering the omission of curbs from street design, consideration to the design of the roadway edge must be given. At a minimum, a gravel shoulder should extend out a few feet from the edge of the pavement to help shore up the edge of the roadway. The roadway section can also be thickened at the edges, providing additional stability. If pavement unraveling becomes a serious issue, it may be possible that curbs can be omitted only if adjacent property owners agree to maintain the edge of the pavement in good condition.

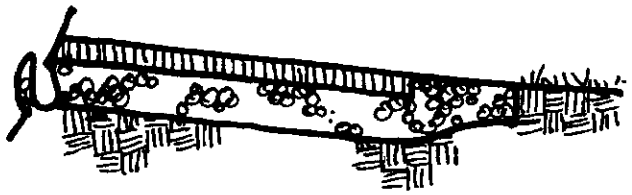


Figure 5.10- Section with No Curb

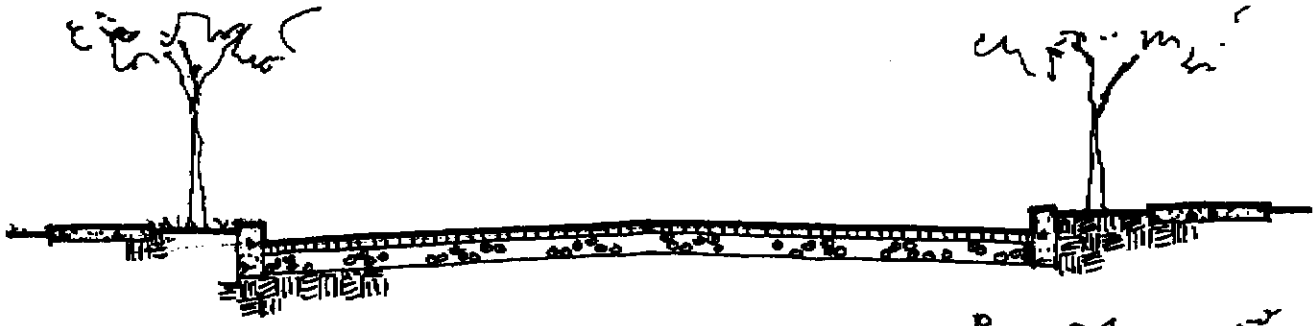


Figure 5.11 - Two Sidewalks

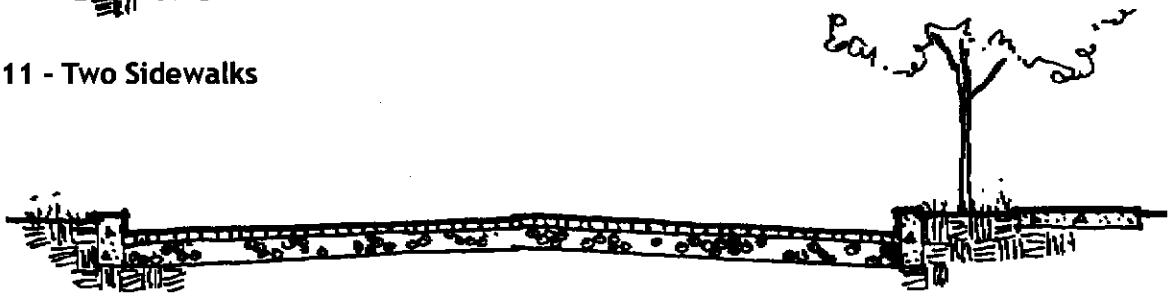


Figure 5.11 - One Sidewalk

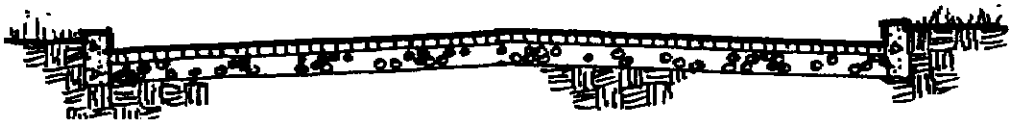


Figure 5.11 - No Sidewalks

5.4.4 Sidewalks

Options for incorporating sidewalks into LID street designs fall into two categories - whether or how many sidewalks will be used on a street, and the materials and methods used in constructing the sidewalks.

5.4.4.1 Two, One, or None

There are really very few options in terms of how or whether a sidewalk is used on a local street improvement. In terms of the initial design, a decision on whether there will be two, one, or no sidewalks (Figures 5.11 - 5.13) is the first step. The Pedestrian Design Guide lays out the requirements for when sidewalks are required on a project.

Like other design elements being considered as part of the LID redesign process, there is a need to exercise a certain amount of flexibility as City staff works with property owners in developing a well-supported LID proposal. While property owners may want to limit sidewalks to one side of the street (or neither side), the City also has a stake in ensuring that our transportation system works well for all of the system's users.

In general, there are certain criteria that need to be examined if no sidewalks are going to be included on a LID project. If the LID project does not meet these criteria, some form of pedestrian access must be a part of the final proposal:

- Excessively difficult topography (e.g., sidewalks would require extensive retaining walls or would impact the stability of slopes)
- Dead end streets less than 200 feet long where no future connection is likely and where zoning is R7 or less dense OR

that has 10 or less dwelling units on the street
- Projects that would encroach on environmental protection (P) zones

There are some circumstances in neighborhoods that would also limit the utility or necessity of constructing two sidewalks. In these cases, there may be certain limits that force the consideration of only one sidewalk. Again, there are certain criteria that need to be met if only one sidewalk is going to be used on a LID:

- Excessively difficult topography (e.g., second sidewalk would require extensive retaining walls or would impact the stability of slopes)
- Dead end streets less than 300 feet long where no future connection is likely and where zoning is R5 or less dense OR that has 20 or less dwelling units on the street
- Projects that would encroach on environmental protection (P) zones
- Significant native vegetation (Multiple trees with calipers above 24" that would need to be removed)
- Limited Right-of-way width (30 feet or less, with no possibility of widening)
- Proximity of existing improvements to the right-of-way that would prohibit expansion of the right-of-way

5.4.4.2 Alternative Designs and Materials

The City undertook an extensive study on alternative designs and materials for sidewalk construction in 1997. The end result of this work was incorporated in the City's Pedestrian Design Guide.

To summarize, there are a number of alternatives that are possible in given circumstances to improve pedestrian access and safety. However, there is a fairly tight limit in terms of how widespread the use of alternatives may be. Factors which determine whether alternative designs can or should be used include:

- Safety - Does the improvement provide safer pedestrian access or is it an attractive nuisance?
- Drainage requirements - Does the improvement alter the existing drainage pattern?
- Topography - Does the existing topography support the alternative approach?
- Accessibility - Does the sidewalk/ pathway need to be fully accessible to the disabled?
- Maintenance - How important is it to maintain a smooth, consistent surface? How often must maintenance be performed on given materials/designs?
- Parking - Will the improvement impact parking, or vice versa?

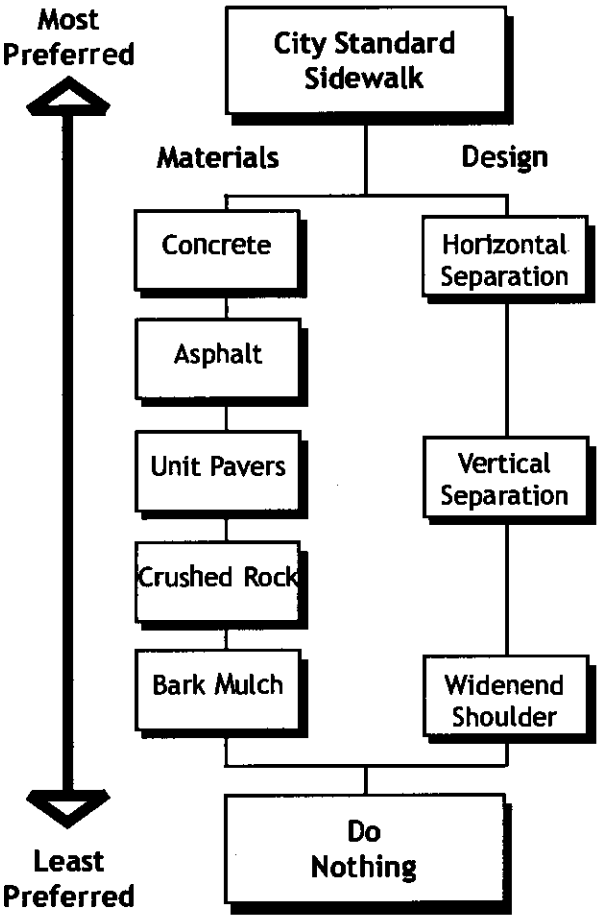


Figure 5.12 - Sidewalk Hierarchy

In order to make decisions about when and where alternative designs and materials can be used, staff developed a hierarchy of sidewalk/ pathway types that helps to guide decision making (Figure 5.12). This hierarchy assumes that the optimum improvement is a sidewalk constructed of approved materials (concrete or pavers) and separated from the roadway by a curb and planting strip. Short of this, at least one form of separation should be provided (either horizontal or vertical) and the paving material should be a hard surface. At the bottom of the hierarchy are sidewalks or pathways that are not separated from the roadway and/or constructed from a material that would be difficult to maintain (e.g., gravel).

As part of the design of LIDs, there is a certain efficiency gained by making improvements correctly at one point in time. While alternative sidewalk materials may be possible in some, but certainly not all, cases, property owners also need to consider the long term maintenance and liability issues. Because property owners will be responsible for maintaining these pedestrian areas, sidewalk improvements should be long lasting and provide a surface free of trip hazards.

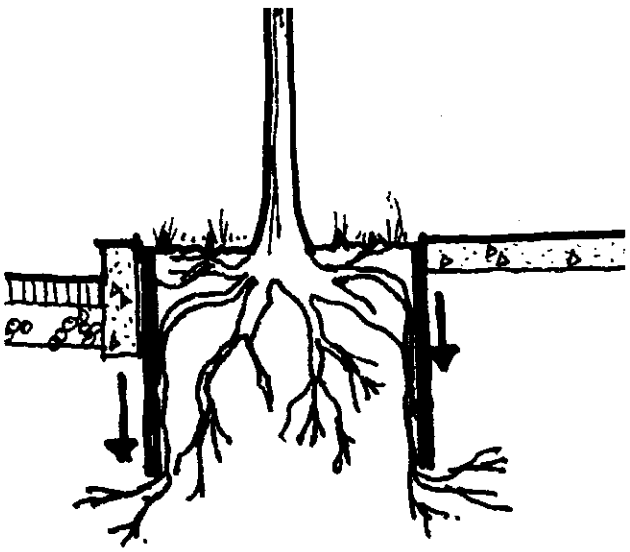


Figure 5.13 - Street Tree with Root Barriers

5.4.5 Street Trees

Like sidewalks, street trees become the responsibility of the property owner to maintain upon project completion. Because of this, there needs to be some care exercised in the type and size of plant material used on street improvement projects. It will continue to be the policy of the City to include street trees as part of street improvement projects where appropriate.

Even with the continued inclusion of trees as part of street improvement projects, there are some points worth making on this issue. First, it is in the best long-term interest of property owners that trees planted adjacent to sidewalks incorporate what are known as "root barriers" at the time of tree planting (Figure 5.13). These barriers are heavy gauge ribbed plastic sheets that are placed either around the planting hole for the tree or, ideally, along the sidewalk where trees are planted. These sheets extend down 18 - 24 inches, and force the trees' roots to grow down before they grow out, minimizing maintenance concerns for sidewalks.

Another point to make is that it may be possible to perform the required tree plantings outside of the street improvement contract. As noted earlier in the report, street trees can cost approximately $500 - 800 installed for a 3" caliper tree and 2 years of establishment/ maintenance by the contractor. It may also be possible for the property owner to directly contract this work themselves, to plant the tree themselves, or to work through an organization like Friends of Trees to fulfill the forestry requirements. In these cases, however, the costs will not be rolled into the final assessment, so the property owner will need to pay for the trees at the time of installation.

5.4.6 Other Design Options

Throughout the redesign process, there was a great amount of interest in two other areas: street improvements that primarily accommodate pedestrians and bicyclists, and alternative street paving materials that allow water to be absorbed into the ground rather than concentrated and collected. These are both areas worthy of further pursuit.

5.4.6.1 Ped/Bike Routes and Traffic Calming

In the development of local infrastructure plans for neighborhoods, consideration must be given to the effects of full street improvements on vehicular and pedestrian circulation in the neighborhood. In some unique cases, paving a street could greatly increase the amount of traffic that it receives if it serves as an attractive detour or cut-through route.

The potential for this kind of impact should be identified early in the discussion stages of a LID or local infrastructure plan. Rather than shying away from any kind of improvement in order to avoid feared impacts, alternatives such as pedestrian and bike-only connections or traffic calming solutions should be considered to mitigate the impact of increased traffic and maintain neighborhood livability. While it may not be possible to implement these kinds of ideas on every street due to emergency access, property owner desires, and other considerations, they are certainly worthy of inclusion in a discussion of desired neighborhood improvements.

5.4.6.2 Pervious Paving

The continuing impact on the listing of endangered salmon in the Portland area, combined with the City's desire to improve the quality of our streams and rivers, has provided an impetus for reexamining existing design standards. Earlier in the report, the discussion of alternatives for handling and treating stormwater is one way that the City's desire for reducing the impact of stormwater can be seen.

Another area that is worth pursuing is the idea of pervious paving for local streets. Pervious paving, in concept, allows water to flow downward through the roadway surface, rather than over the top of it to the side of the road. By allowing the water to absorb into the ground below the roadway, there is potential to reduce the amount of runoff from streets and thereby reduce the impact of street surfaces on stream health.

There are some problems that need to be explored with these types of paving materials, however. First among these issues is the long-term viability of the paving material from a roadway maintenance standpoint. Water in the roadway subgrade can wreak havoc on the stability of the street and lead to the rapid deterioration of the roadway surface. Another issue is whether the surface will maintain its pervious characteristics over time and not clog up with debris or sediment that would render the surface impervious.

The only real way to answer this question is to perform field tests of potential solutions. It is a recommendation of this process that PDOT and BES engage in a test project where a variety of surfaces can be constructed and then monitored for effectiveness. The end result of this process should be a set of recommendations on which, if any, of the materials or methods for constructing pervious paving surfaces are acceptable and under what conditions they could be applied.

5.4.7 Assembled Street Designs – Cost Comparisons

As design issues were explored with property owners and residents, it was apparent that many of their objections to existing design standards stemmed from what was viewed as the excessive cost associated with the full set of City design standards. In order to evaluate these concerns and test the validity and effectiveness of design standards from a cost perspective, staff generated four different combinations of alternative street and stormwater designs.

The intent of these designs (Figures 5.15 - 5.18) was not to generate design templates for use on local streets, but to provide a realistic cost comparison to existing design standards.

The cost analysis performed on these options revealed that, while it is possible to achieve short term cost savings through the pursuit of alternative design approaches, the highest savings achieved was approximately 20%. In addition, the alternative approaches to handling stormwater would have higher maintenance costs associated with them as curbs are eliminated and swales and ditches are maintained for effective water flow and filtration.

Table 5.3 shows the relative cost comparison for the street design alternatives. It should be noted that linear foot costs were based on a "typical" Portland block length of 220 feet, and that there is no consideration given for constraints that may be encountered on a street improvement project (e.g., steep slopes, right-of-way widths, encroachments, soils, etc.).

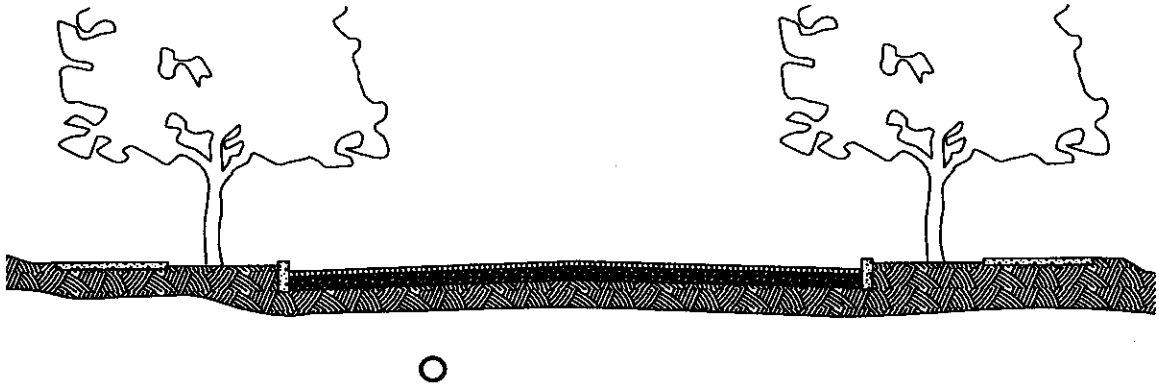


Figure 5.14 - Existing Design Standards

26' Street Design Options	Unit Cost (linear feet)	Total Cost	Cost per Property (5000 SF Lot)	Comparative Cost Savings
Existing Design Standards	$423.05	$92,520	$12,500	N/A
Option A - Swale Section	$364.55	$80,200	$10,800	13.3%
Option B - Shed Section	$351.36	$77,300	$10,400	16.5%
Option C - Valley Section	$347.73	$76,500	$10,300	17.3%
Option D - Valley/Swale Section	$333.64	$73,400	$9,900	20.7%
Linear foot costs based on a 220' block; Property owner costs based on 5000 SF Lot				

Table 5.3 - Comparative Costs for Alternative Street Designs

Figure 5.15 - Street Design Option A - Swale Drainage

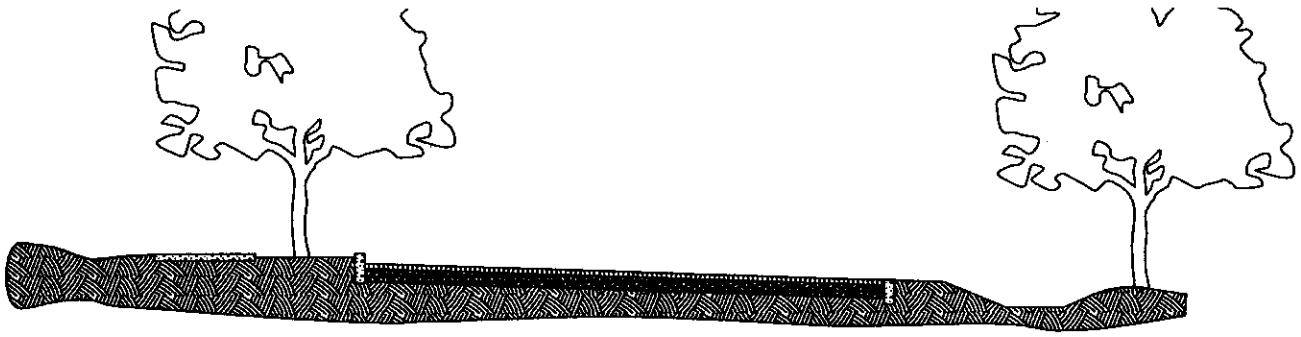


Figure 5.16 - Street Design Option B - Shed Section with Swale Drainage

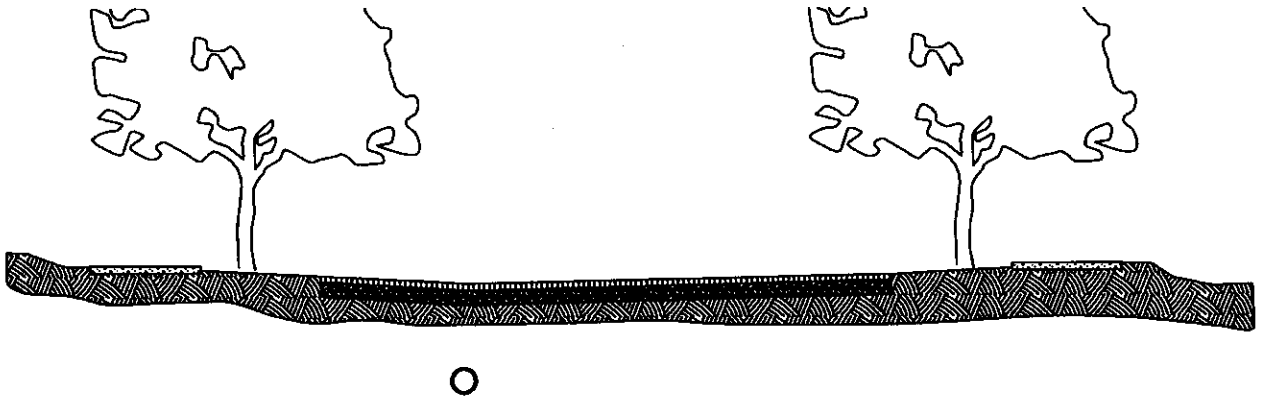


Figure 5.17 - Street Design Option C - Valley Section with Main Line Storm Sewer

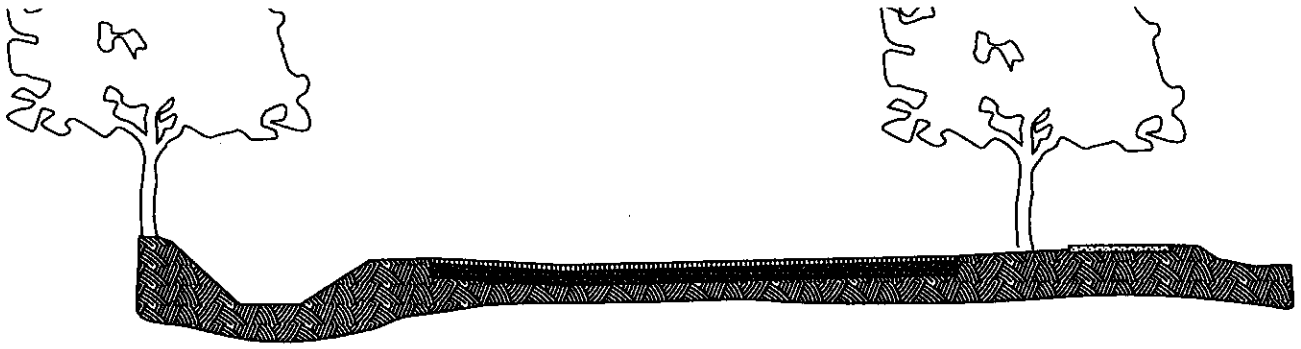


Figure 5.18 - Street Design Option D - Valley Section with Swale Drainage

5.5 LOCAL IMPROVEMENT DISTRICT COSTS

Cost is the one factor in the LID process that has the greatest effect on a property owner's willingness to support an LID. While the greatest cost reduction for a property owner would result from increasing the amount of subsidy applied to projects, there are also some other areas where addressing cost concerns will be very important in gaining property owner consent for LIDs.

5.5.1 Guaranteed Price

Behind the total cost of a project, the most common reason that a property owner will not support a project is if there is no guarantee of a final cost for the project. The Sponsoring Bureaus should strive to work towards providing guaranteed costs to property owners contemplating LIDs, or, at a minimum, providing a not-to exceed range around the estimate.

While it may be difficult to achieve without significant funding support, it is also possible to guarantee costs based on a greater level of detail or understanding of the scope of a project. The expanded Pre-LID process provides an opportunity for staff to more closely study a local improvement and generate a more accurate cost estimate. Although it can also be anticipated that cost estimates will be more conservative, the net result may still be more positive by providing peace of mind to property owners concerned with rising project costs.

If the intent of running any LID process is to gain property owner support for the LID, a guaranteed cost is a near necessity. Without a guarantee, property owners will be loathe to sign what they consider to be a blank check to the City for the proposed improvement.

5.5.2 Overhead Billings

Because property owners receive little, if any benefit from services that bureau overhead charges cover, these charges should not be passed on to property owners in LIDs. Additionally, Bureau budgets are not constructed around anticipated revenues from LIDs at this time, so any overhead revenue that comes in as a result of LIDs essentially takes the form of a windfall to the bureau.

5.5.3 Performance Standards for Engineering and Administration

With the current engineering and administration costs hovering near 33% of the total project costs, it is recommended that a performance measure be enacted to reduce these costs down to an acceptable level. Staff should attempt to limit engineering and administration costs to 25% of total project costs.

5.6 WAIVERS

Waivers are a difficult issue to grapple with as they relate to the LID process. On one hand, waivers make complete sense when one considers that it is not always reasonable to ask for street improvements at the time of development. Rather than let a property develop with no acknowledgment of this responsibility is a missed opportunity to ensure that the improvements can be made at some point in the future.

However, waivers are also problematic, at times poisoning the democratic process of an LID and fostering resentment among property owners with waivers. Beyond that, the lack of meaningful information on a title report that would raise a red flag for a potential buyer or lender hurts the process and reduces the value or effectiveness of the waiver.

As part of the redesign effort, a number of solutions were identified for improving the City's waiver system. The resulting recommendations maintain the waiver system for now, with a few modifications related to how property owners are notified of the waiver's existence and the way that waivered property owners are included in the LID process.

Another recommendation of the redesign effort is that the waiver system be revisited in about three years, after some time has passed to evaluate the effectiveness of the other LID recommendations. At this point in time, it does not seem necessary or prudent to replace the waiver system without knowing the effect that cost reductions or process improvements may have on property owners considering LIDs.

5.6.1 Immediate Recommendations

There are three immediate recommendations related to waivers that are important to implement in order to enhance the effectiveness of the waiver system. These recommendations address how the presence of waivers are communicated to current or future property owners, and the process for involving waivered property owners in LID decisions.

5.6.1.1 Notification of waivers to current property owners

Because many of the City's current waivered property owners are unaware of a waiver on their property and/or the significance of that waiver, City staff will develop a mailing to these owners alerting them to the waiver's presence. The mailing will provide basic information on what the waiver is, how the LID process works, and what their responsibilities are for notifying subsequent property owners about the waiver's presence.

While notice has been formally and legally given to these property owners through their title report at the time of property purchase, many are unaware of the presence or significance of the waiver on property. Directly notifying them in a non-alarmist fashion will help to immediately provide a good base of awareness among waivered property owners about how the waiver and LID processes work.

In addition, when new waivers are issued, the City should notify adjacent property owners of the issuance. Doing this will ensure that surrounding properties are aware of the existence of waivers in their neighborhood, as well as the potential for street improvements to occur.

5.6.1.2 Require early disclosure in the selling process

The City should pursue legislation, at the City or State level, that requires waivers to be disclosed to potential purchasers in much the same fashion as lead paint or oil tanks are today. By requiring the disclosure of waivers at an earlier stage of the purchase process, rather than relying on the title report to convey this information towards the end of the process, will help potential property owners make a more informed decision about waivered properties.

5.6.1.3 Involve property owners in LID decisions.

A waiver on the property does not mean that the property owner has no say in the process. Instead, the LID process should encourage all property owners, including those with waivers, to participate in how the street should be designed, what the size of the district should be, how costs should be allocated, and other important issues. The goal should be to gain the support of waivered property owners, not alienate them.

5.6.2 Recommendations for Future Consideration

The Action Plan in Chapter 7 calls for the reevaluation of the waiver system approximately three years after the LID recommendations have been put into place. At that point, it will be more apparent whether waivers continue to be a thorny issue, even with process and potential funding improvements.

A number of ideas were generated through the process that are worth documenting and considering as part of this future effort.

5.6.2.1 In-lieu-of Fees

One of the ideas considered in responding to the waiver issue was to replace the waiver system with a fee charged to the builder or developer for street improvements. In concept, this fee would relieve the property from most, if not all, of the future cost liability for street improvements and could be set aside in an interest bearing fund until the street improvement was made.

The benefit to taking this approach is that it relieves future property owners of cost liability for street improvements. Also, the cost of the street improvement can be included in the property at the most appropriate time - at development - so that the costs does not become a surprise to property owners at future dates.

There are a few potential drawbacks to an in-lieu-of fee. First, the idea of relieving the property of any future obligation would mean that increased costs over time could mean a greater liability to the City when the improvement was actually made. Second, fees collected for local street improvements would need to be spent on the street where the money is collected; it cannot be pooled and used in other areas of the City.

The third, and most compelling, argument against an in-lieu-of fee is that the money collected would likely be rolled into the cost of the house, and the buyer would be made aware of this fee. The buyer would almost certainly demand a street improvement within a reasonable time frame, say five years, or would ask for the money to be returned. In reality, collecting a fee like this would only work in a situation where the City knew that a project would proceed within two or three years. Beyond that time, it is more likely that the money would need to be returned to the property owner.

5.6.2.2 Waiver Buy-back Program

Allowing property owners to purchase back the waivers that are present on their property is another way to deflate the waiver issue. The benefit of having a buy-back program for waivers is that it allows property owners to clear the title of their property and relieve themselves of future cost liability for street improvements. They are essentially buying back their voice in the LID process, although they may still find themselves pulled along with a majority opinion that they do not agree with.

The drawbacks to this approach are similar to those of the in-lieu-of fee and should be addressed when the waiver reevaluation occurs. Namely, those drawbacks include construction costs exceeding what was paid to clear the waiver, separate accounts for each property/street for tracking fees, and the need to deliver street improvements in a reasonable time frame to property owners who have paid the fee.

5.6.2.3 Limited Use of Waivers

If waivers continue to be problematic as part of the LID process, and a decision is still made to maintain the waiver system rather than replace it, it may be worthwhile to explore limiting the use of waivers on street improvement projects. By allowing only a certain percentage of support on any project to be waivered (e.g., 15%, 20%, 30%), it protects both waivered and non-waivered property owners from LID processes that are driven by a majority of waivers.

5.7 MAINTENANCE OF SUBSTANDARD STREETS

One issue that arose time and again throughout the Redesign process was the maintenance of substandard or unimproved streets. Because City policy is clear that the responsibility for maintaining streets that have not been accepted by the City lies with the abutting property owners, there is a great deal of interest on the property owners' behalf on having realistic street maintenance options.

As maintenance policy currently exists, property owners are responsible for maintaining the adjacent street until it has been expressly accepted by the City for maintenance. Any work that the property owner performs in the right-of-way must be under City permit or must be performed using only hand tools. The hand tool restriction is found in 17.24.010 E of the City Code:

Notwithstanding anything to the contrary herein, residents and property owners are permitted to fill potholes in adjacent public streets which are not maintained by the City or any other jurisdiction, provided that the fill material used is similar to the existing road material, and provided that only hand tools are used in placing and distributing the fill material.

This code restriction, combined with fairly rigorous standards for the permit process, has left few reasonable options available for property owners. Two basic options were explored to assist property owners interested in maintaining their streets: new permit programs or changes to City Code to allow more private maintenance flexibility. After weighing these options, it is recommended that a change in City Code be pursued to allow property owners to responsibly perform more maintenance work without a permit.

The changes to City Code that are required to implement this recommendation require that property owners meet criteria for allowable maintenance activity, cooperation among property owners affected by the maintenance, and minimum insurance standards. Specifically, the criteria that should be incorporated into code include:

- Maintenance is defined as improving the condition of the street or storm drainage system to the existing level of improvement. For example, improving an existing dirt or gravel road by grading the street smooth and laying down a new layer of gravel or repairing an existing oil-gravel or asphalt street with asphalt material.

- The street width must not increase as a result of the maintenance work.

- The existing drainage pattern must not be altered, and stormwater is not permitted to be redirected to private property if it does not flow there currently.

- Approval of the abutting property owner where maintenance work is taking place must be obtained in writing.

- Contractors working with equipment in the right-of-way must provide a proof of insurance coverage ($1,000,000 liability) to property owners abutting the maintenance work area.

- If street closures are required to perform the maintenance work, a permit must be issued through the Office of Transportation prior to any closure taking place.

The final language for this code change will require the participation of the City Attorney's Office prior to adoption by Council.

5.8 LOCAL INFRASTRUCTURE PLANNING

A critical issue that was identified by community members and City staff alike during the LID Redesign process was the lack of any local infrastructure plan for the City of Portland. At first glance, this may not seem to be an important issue in considering the effectiveness of an LID process or the cost of an LID project. However, the lack of guidance that a local infrastructure plan would otherwise provide has dramatically affected the way that the City is able to build street and storm sewer improvements.

5.8.1 Why Plan for Local Infrastructure?

Cost Efficiency - A local infrastructure plan provides cost efficiency by setting a direction prior to projects being initiated, and linking projects in a rational way. Ideally, the plan would identify the type of improvements required for any given street or storm water system, how the improvements should be funded, and a schedule for making the improvements.

Without this direction, City staff are required to do the same level of work each time a project proposal surfaces. The total amount of staff time needed to define each project as they come, exceeds, if not equals, the amount that would be required to complete a local infrastructure plan. In the end, figuring out our infrastructure system project by project ends up costing more in the operation of a local infrastructure program.

Economy of Scale - Closely related to cost efficiency, economy of scale can be attained by planning ahead for local infrastructure improvements. By identifying projects that can be banded together and which can utilize common resources (staff, LID processes, bid packages, contracts, etc.) or facilities (stormwater management ponds, construction staging areas, etc.), project costs can be reduced.

Coordination of Improvements - Currently, there is not a great deal of effort put in to coordinate improvements. While City Bureaus are able to move projects around in schedules and budgets if conflicts become apparent, there is not really a process for these bureaus to proactively and strategically work together to coordinate improvements.

This coordination is a key component in the importance of local infrastructure. By working together far ahead of the improvements, City Bureaus can identify not only how they can work together, but in the process can also define the projects and gain agreement on what the final design of our local infrastructure should be. It is especially critical that PDOT and BES engage in a collaborative infrastructure planning process because of the interconnectedness of the street and stormwater system.

Effective Stormwater Improvements - The project by project approach to determining stormwater improvements is problematic because it does not always result in the most effective improvements. By planning ahead, the most effective manner for conveying and treating stormwater runoff can be identified for specific watersheds. As projects are identified and funded, these projects can then build out what has been defined as the ideal improvement for a watershed. This approach would result not only in a more effective system, but also would result in a more cost efficient system.

Effective Transportation Improvements - Many neighborhoods and property owners voice concern over the impact that street improvements may have on neighborhood livability. Without taking a wider view of the street system and looking at street design and/or alignment alternatives, it is nearly impossible to assuage these concerns and deliver a product that meets community desires.

Certainty - For property owners and residents living in neighborhoods with unimproved or substandard infrastructure, there is no way to anticipate when or how these improvements may be made. A local infrastructure plan can and should give these citizens information on what their street will look like, how stormwater will be handled, how the improvements will be funded (including what the property owners' share may be), and when the improvements are likely to occur.

Budgeting - By thinking through what kinds of improvements are desired and how these projects can be effectively coordinated, budgeting for these improvements becomes a much more certain exercise. Project budgets can be defined based on actual project scopes, and scheduled according to the local infrastructure plan.

Community Involvement - The process of creating a local infrastructure plan, by necessity, requires an extensive amount of community involvement. This process assures the community and City alike that projects identified and implemented through a local infrastructure plan have community support and work to achieve broader goals of a community.

5.8.2 Creating a Local Infrastructure Plan

Participants in the LID Redesign process strongly supported the notion of creating a local infrastructure plan for the City of Portland. Ideally, the plan would be City-wide, and provide a literal road map for making street and stormwater improvements in our neighborhoods.

Components of a Local Infrastructure Plan should include:

- Extensive public outreach to neighborhood residents, property owners, and neighborhood associations
- Detailed inventory of existing conditions
- Identification of street types/designs
- Identification of stormwater conveyance facilities
- Identification of stormwater treatment facilities
- Criteria for prioritizing improvements and identification of priority projects
- Schedule for implementation
- Funding strategy for implementation

In order to fully define the elements of the Local Infrastructure Plan and the process for producing it, a scope of work should be defined for the planning process. PDOT, BES, Water, and Planning should all be involved in the development of this scope, along with community members interested in or affected by the process.

While it may be ideal to do this work City-wide, it may not be possible to do immediately and would require a very concerted effort to coordinate between City Bureaus. Short of a City-wide plan, there are other methods which may be effective to providing an avenue for pursuing this planning work. These methods include:

Integrated Watershed Management Plan (IWMP) - in the Southwest Community Plan process, community members identified a desired planning effort that is very similar to what is intended to be accomplished through a Local Infrastructure Plan. The concept of an IWMP is to base strategic planning on watersheds, balancing the strategic planning on watersheds, balancing the variety of needs and demands that are present within a given watershed. This would also identify desired street and stormwater improvements, and would help to address the issue of existing development and its impact on our stormwater and street resources.

Target Area Plans - This concept is similar to efforts that the Bureau of Housing and Community Development (HCD) and the Portland Development Commission (PDC) have used in certain neighborhoods that were targeted for investment of public resources. Short of a city-wide plan, this approach would be effective in going into a neighborhood prior to the implementation of improvements and developing a plan for improvements. Recent examples include Lents Town Center (PDC) and Brentwood Darlington (HCD) in Southeast Portland.

6.0 FUNDING LOCAL INFRASTRUCTURE

"As a community, we have made a decision to hold the Urban Growth Boundary where it is and accept a greater level of development within our existing neighborhoods. This decision means that it is even more important for us to use our public resources to accommodate this development and improve our public infrastruture in a way that enhances, rather than detracts from, our neighborhoods."

- Mark Sieber, LID Redesign Steering Committee Member and SW Community Plan Task Force Chair 1999

The initial task handed to City staff in the LID Redesign Process was to identify and correct deficiencies in the City's Local Improvement District process that had impeded the tool's effectiveness. As outlined in Chapter 5, there are a number of recommendations aimed at improving the LID process and increasing the chances for forming successful districts.

However, it became clear that community and City interest went beyond just fixing the LID tool. The mission statement, which is in Chapter 2, sums up what this interest is: a desire to not just fix the LID tool, but to create a program that makes a significant amount of progress in improving our City's local infrastructure.

The distinction is important to make. Our discussions with property owners who are potentially affected by or interested in street improvements have shown us that while the recommended improvements to the LID process are welcome and necessary, alone they are not enough to persuade these property owners to support an LID.

As stated earlier, the primary issue that affects a property owner's willingness to support a LID is the cost of that project to the property owner. It may be possible to reduce the cost of these projects by making the LID process more efficient and adjusting design standards in certain circumstances, but this will still not provide enough relief to property owners to earn their support. **Ultimately, if any significant progress is desired in improving local streets through the LID process, increased public subsidy must be provided.**

6.1 BACKGROUND – LOCAL INFRASTRUCTURE DEVELOPMENT

Before discussing why an increased public subsidy is warranted or how this subsidy might occur, it is helpful to look at the current state of how local infrastructure is provided. This includes the current rate of progress that the City is making in improving nearly 600 miles of substandard streets; reasons for cost increases over the last ten years; and the public funding sources currently being used for local street improvements.

6.1.1 Rate of Progress

There are two primary ways that local streets and storm sewers are improved in the City of Portland: through LIDs and through the permit process. Over the last ten years, the most significant progress has been made through the permit process as property owners and developers build and fund street improvements on their own. Most often these improvements result from City requirements that result from redevelopment or land use actions.

For LIDs, it is useful to separate out projects that were subsidized by the Bureau of Housing and Community Development (HCD). Because these projects received a 70% subsidy, they were quite different and received a much higher level of property owner interest than a more "standard" LID that did not receive a large amount of subsidy. The .4 miles/year that was achieved, on average, for HCD subsidized LIDs could have been much more if not for the limited availability of funds.

Regardless of how streets are improved, the current rate of progress would mean that it will take the City approximately 140 years to complete all 600 miles of substandard streets within the City relying on the current process for improving streets. Over that time, most of the improvements would result from the permit process, but this assumption is based on the continued strength of the development climate. In fact, it is more likely that the current rate of progress seen through permits will slow over time, leaving LIDs as the only real alternative for making progress in some neighborhoods.

In general, the rate of progress over the last ten years is summarized in Table 6.1. It is worth noting that between 1997 and 2000, no real progress was made on LIDs due to the lack of available HCD funding, rising project costs,

Time Period	Annual Progress	Improvement Method
1990 - 1997	.4 miles	Standard LIDs (20-30% public funding)
1990 - 1997	.4 miles	Subsidized LIDs (70% public funding)
1994 - 1999	3.8 miles	Permit Process (No public funding)
1997 - 2000	0 miles	Standard or Subsidized LIDs
2000 - 2002 (anticipated)	.6 miles	Subsidized LIDs (70% public funding)

Table 6.1 - Rate of Progress, 1990 - 2000

lack of property owner interest in the existing LID system and an informal moratorium on LIDs during the redesign process.

Another point worth making is that the City is embarking on a new LID program in the Lents neighborhood in Southeast Portland. The Portland Development Commission (PDC) and Office of Transportation have set up a program where 70% of the street improvement costs will be paid by the City through urban renewal funds. By working through a process during the summer of 2000 that incorporated many of the recommendations for the LID process, support for the improvement of 1.2 miles of street in Lents was immediately generated. This is a good indication that given the right price and a good process, support for LIDs can be generated and significant progress can be attained.

6.1.2 Cost Increases for Street Improvements

There are a number of factors that have led to an increase in cost for street improvements and the subsequent decline in interest on the part of property owners in forming LIDs. It is impossible to quantify these factors in absolute terms, but in general we can identify significant impacts on project costs in the following areas:

Construction Inflation - A booming economy in the latter part of the 1990's has led to extensive development activity in the Portland region. As a result, there has been an ongoing flow of work to the contracting community and seasonal shortages of raw materials and labor. At a minimum, costs in Oregon increased 41% between 1991 and 1999, an average annual increase of around 5%. ODOT has reported that in 1997 alone, raw materials and labor shortages accounted for a 17% increase in construction costs on projects within the state. The inflation of construction costs within the economy of the 1990's exceeded the general rate of inflation. The resulting increase in project costs was not set off by increases in other areas, most notably personal income.

Stormwater Management Requirements - In the latter half of the 1990's additional requirements for stormwater management were added in order to comply with federal, state, and regional regulations for water quality and habitat protection. The listing of salmonids (steelhead, cutthroat trout, etc.) in Oregon, including in the Portland region, has also led to more stringent requirements for handling stormwater runoff from streets.

Costs for stormwater requirements vary by project - in some cases, fairly minimal improvements are required in order to comply, while in others property acquisition and extensive improvements may be required in order for the project to be approved. On average, it could be expected that these requirements would add approximately 10% to the cost of a local street improvement.

Street Design and Construction Requirements - A number of guidelines were instituted in the latter part of the 1990's that influenced the design elements of a street. Prior to 1991, there was no requirement for sidewalks on local street LIDs, although many were built with sidewalks. At that point, sidewalks began to be required on all LIDs unless constraints dictated otherwise.

In 1998 the Pedestrian Design Guide was adopted which suggested that two sidewalks should be the norm on all local streets. The Guide also laid out situations where one or no sidewalks may be acceptable. The requirement of sidewalks on a street project adds a minimum of 9% to the project costs, but the number could increase if there are right-of-way or topographical constraints to deal with.

Street trees were also required on local street project beginning in 1995 with the adoption of the City's Urban Forestry Plan. Street trees and the associated planting strip between the road and sidewalk can add around 7% to the total cost of a project.

The City adopted the Erosion Control Manual in 1999 as part of its efforts to address clean water requirements and the Endangered Species listing. So far, it is too early to tell what kind of effect this may have on project costs, but it will definitely result in an increase due to more stringent requirements for contractors to prevent sediments from leaving construction areas.

Difficult Physical Constraints - Many of Portland's unimproved local streets are situated in areas where greater constraints are present - steep slopes, significant trees/ habitat, and existing development can all directly impact the cost of a project. To a certain extent, many of the "easy" projects have been completed where flat land or little existing development posed problems for accommodating street improvements.

These constraints can cost a project in two areas. First, more design work is often required to get a street to fit to existing conditions. Second, physical features like retaining walls may be required to make up significant grade distances, and driveways are often reconstructed well beyond what would be required on flat streets.

6.1.3 Current Funding Sources

There are currently three primary funding sources being used by the City of Portland to subsidize local street improvement costs on LIDs. While other public funding sources are certainly possible and are described in more detail later in this chapter, the three listed here are really the only ones available at this time.

General Transportation Revenue (GTR) - GTR comes from the state gas tax, and is the primary source of funding for the Portland Office of Transportation. Currently, the bulk of the City's GTR is committed to ongoing maintenance of the public street system. Approximately $2 million out of the City's total GTR ($55 million) is allocated to capital (or new) projects in the fiscal year beginning July 2001, down from $4 million in the current fiscal year (2000/2001). The availability of GTR for new projects, including local street improvements, will continue to decline as the cost of maintaining the existing street system continues to rise and the City Council continues to prioritize maintenance and preservation over new construction.

GTR is used to subsidize intersection and drainage costs on standard LIDs. This subsidy is consistent with past City policy to pay for intersections, corners, and drain inlets (which typically occur at the intersection) because of the wider community benefit that these areas provide. This subsidy averages 10-15% of the total cost of most local street improvements.

Housing and Community Development (HCD) - HCD has subsidized local street improvements substantially in targeted areas around the City through the use of federal Community Development Block Grants (CDBG). These grants are a primary source of funding for HCD, and are specifically intended for low income neighborhoods, or projects which meet a low income test.

HCD has used these grants in two primary ways. First, HCD has designated target areas based on income levels, housing needs, and other priorities. Plans in these target areas often call for the improvement of local streets as a way to accommodate affordable housing and improve the neighborhood and the economic standing of its residents.

The second way these grants are used is to directly support affordable housing projects outside of designated project areas. In these cases, a street may meet the income requirements, and the provision of a subsidy for street improvements helps not only to offset the cost of new housing on the street (and therefore enhance its affordability) but also to help existing residents make street improvements as part of revitalizing their neighborhood.

In either situation, these funds are usually used to offset the cost of a project by 70%. Property owners are responsible for the remaining 30%, unless a property owner who is also a resident falls below certain income guidelines. In these cases, the assessment is paid for entirely by HCD.

While HCD has certainly created a program that is attractive to property owners and has resulted in successful LIDs even in low-income neighborhoods, the application of these funds is limited because of the low-income test. Also, like other funding sources, CDBGs are becoming more scarce and must be prioritized for use based on overall City goals.

Urban Renewal funds (Tax Increment Financing) - The Portland Development Commission has recently formed an Urban Renewal District in the Lents Neighborhood in Southeast Portland. As part of this district, a residential street improvement program has been developed to help offset the costs of street improvements to property owners.

The program in Lents is similar to the HCD program in that 70% of the project costs are paid by the City and the remaining 30% paid by the property owner. There are similar safety nets built in for low-income residents as well.

Urban Renewal Districts generate funds through a process called Tax Increment Financing (TIF). This method essentially borrows money based on the anticipated growth in property tax revenues within a defined area. This borrowed money is used to make certain public improvements (like street improvements) that increase property values and neighborhood investment, thereby generating the tax revenue to pay off the money borrowed.

Even though street improvements do not result in increased property taxes as long as a property does not redevelop, enough tax increment is generated in areas like Lents to support the investment of urban renewal funds in programs like residential street improvements.

6.2 WHY SHOULD THE CITY HELP FUND LOCAL STREETS?

In order to create a local street improvement program that makes significant progress in improving local streets and results in substantial property owner support, it is absolutely necessary for the City to participate in funding street and storm sewer improvements. There are four primary reasons why the City should help fund local streets:

1. Community Decision to Accommodate Urban Growth Boundary - As a community, the City of Portland has made a pointed decision to support the region's Urban Growth Boundary (UGB) by encouraging infill development city-wide. This decision has resulted in increased pressure on the City's local infrastructure and neighborhoods.

2. Community Benefits of Recent City Design Requirements - Over the last ten years, an additional cost burden has been placed on property owners for elements providing a wider community benefit (e.g., sidewalks, street trees, street connectivity, stormwater management, erosion control standards). Sidewalks, street trees, and stormwater quality requirements could add 30% or more to project costs compared to a project built without these elements. While these elements may be important to meeting City, State, or Federal goals and requirements, the cost impact cannot be ignored.

3. Stream Health/Water Quality - Improving local streets and stormwater systems up to our current stormwater standards will lead to an improvement of stream health through the reduction of sediments and pollutants entering streams.

4. Healthy Neighborhoods - Improving local streets will help protect neighborhoods from decay and ensure that property taxes do not fall due to disinvestment. Investing in local street and storm sewer also helps bolster the health of a neighborhood by creating safer streets, reducing air pollution, and addressing stormwater issues.

There are a few other issues that bolster the case for city investment in neighborhood infrastructure. These include:

Current Rate of Progress - Depending on LIDs to complete the local infrastructure system is unrealistic given the inventory of streets to improve. It will take a minimum of 140 years to complete the City's street and storm sewer network at the current rate of improvement using unsubsidized LIDs.

Recent Success - Programs in low-income neighborhoods using HCD and PDC subsidies have proven that there is demand for improvements if the cost to property owners is acceptable. Even in these areas, property owners acknowledge that they benefit from the improvements and can assume part, but not all, of the cost burden.

Current Funding Trends - Rather than heading towards decreasing property owner costs or, at a minimum, maintaining the status quo, funding trends are headed in the opposite direction. Currently, funding specifically allocated to LIDs is below what was provided in the early 1990's (average subsidy 1990 - 1997 29%; average subsidy 2000 10-15%).

Funding Local Infrastructure is Equitable for All City Residents - The notion that property owners who live on streets that are already improved have paid all of the street improvement costs at some point in history is false. Property owners across the City have received substantial support for improvements in the past, and even today certain neighborhoods receive financial assistance to make street improvements.

6.3 LOCAL STREET IMPROVEMENT PROGRAM

The development of a local street improvement program is critical if the City is intent on supporting neighborhood livability and making significant progress in improving public infrastructure. At this point, the LID Redesign Process has focused on establishing basic goals and priorities for a program, as well as potential funding scenarios to support the program.

6.3.1 Program Goals

Creating a program to work with residents and property owners to improve local streets and storm sewers requires that clear goals be established to help guide the program and respond to community desires. While there will be an opportunity to strengthen, clarify or expand these goals if the program is created, there is some agreement that the program should accomplish the following:

- Develop a strategic plan for improving local infrastructure
- Target streets/areas where there is property owner support and/or where there is potential to provide broad community benefit
- Provide a guaranteed cost to property owners
- Reduce cost to property owners to 50% of today's costs
- Increase the success and completion rate of LIDs
- Implement LID process recommendations (Chapter 5)

6.3.2 Prioritization

With the establishment of a local infrastructure plan and the investment of public resources into local street improvements, prioritizing improvements will be a necessity. As with the goals for the program that are outlined above, this prioritization will be clarified as the program is further defined. At this point, however, it seems reasonable to assume that the following list would reflect some of the initial ways that local street improvements would be prioritized:

- Amount of neighborhood/property owner support
- Project provides safety improvements
- Project addresses critical stormwater management issues
- Proximity to schools, parks, transit, commercial centers, activity centers
- Targeted neighborhoods identified for public investment
- Cost effectiveness of proposed improvements

6.3.3 Funding Scenarios

The most critical factor in gaining property owner support for LIDs is addressing the final cost to property owners for street improvements. It is clear that, although cost can be affected by the recommendations contained within this report, there will be little chance for enticing property owners to form LIDs for street improvements unless there is also substantial public investment in these improvements.

In order to begin a discussion on how to most appropriately fund local infrastructure in the City of Portland, three basic funding scenarios were generated.

6.3.3.1 Minimum Scenario

The intent of this scenario is to restore funding to the levels present in the early to mid 1990's. During that time, the City provided approximately 20 - 30% of the funding for street improvements, with the remainder coming from the property owners. Although this would be an improvement upon what is currently budgeted for LID support, it is also unlikely that this level of financial support will generate widespread interest in using the LID process.

The key components of this scenario are:

- Provide public funding to equal 1995 funding levels (20-30% of project costs)
- Property owner would be responsible for 70-80% of project costs
- Funding Required (FY 2001/2002): $350,000
- Implement LID Process Recommendations
- Anticipated Rate of Progress:.5 miles/ year
- Time to Completion of Network: 140 yrs

6.3.3.2 Recommended Scenario

When reviewing the three funding scenarios with property owners and residents, participants concurred with City staff that the most appropriate level of public funding would be in the $2,000,000 annual range. By funding local improvements at this level, it is anticipated that there could be substantial property owner interest in forming LIDs for street improvements.

The goal of this scenario is to reduce the cost to property owners by 50% compared to today's costs. In discussions with Working Group participants, this appears to be a reasonable level of funding that would substantially affect the cost appeal to property owners. When one considers that low income (50% of Median Family Income or above) pay 30% of the costs in some City neighborhoods like Brentwood-Darlington or Lents, it seems likely that even middle income neighborhoods will find the 50% level to be attractive.

The Recommended Funding Scenario is based on the following assumptions:

- Provide $2,000,000 public funding annually for local street and stormwater improvements
- Property owner would be responsible for 50% of project costs
- Funding Required (FY 2001/2002): $500,000
- Funding Required (FY 2002/2003) $2,000,000
- Implement LID Process Recommendations
- Anticipated Rate of Progress: 2.2 miles/ year
- Time to Completion of Network: 100 yrs

As noted here, investing $2,000,000 into a Local Street Improvement Program will not result in an overnight fix to the City's entire system. However, it is worth putting the rate of progress into perspective. The City's total current inventory of substandard streets

(including collectors and arterials) is approximately 600 miles. Out of this, 70 miles are dirt or gravel, meaning that an improvement rate of 2.2 miles per year, combined with 3.8 miles of street improved through permits, means it would take 11 or 12 years to improve 70 miles.

At this point, it would also not be wise to immediately invest any more than $2,000,000 into a street improvement program without first developing the program and allowing a certain amount of success and efficiency to develop. It is unlikely that City staff would be able to gear up immediately and effectively deliver projects if the program is funded at a higher level. If there is a desire to grow the program and make more progress, additional funding should be added gradually to allow City staff to adequately staff and deliver more projects.

6.3.3.3 Optimum Scenario

The Optimum Scenario is based on the assumption that the Mission Statement for the LID Redesign process would be met. This means that the goal of the program would be to improve all 600 miles of substandard infrastructure within 30 years.

In order to meet these goals, the program would resemble the following scenario:

- Provide $13,450,000 per year subsidy for local street and stormwater improvements
- Property owner would be responsible for 50% of project costs
- Funding Required (FY 2001/2002): $2,000,000
- Funding Required (FY 2002/2003) $13,450,000
- City would implement aggressive improvement program
- Anticipated Rate of Progress: 16.2 miles/year
- Time to Completion of Network: 30 yrs

6.3.3.3 Programmatic Considerations

Each of the scenarios present some differences in how a program would be developed to respond to the level of public funding available. Part of analyzing these scenarios and selecting the most effective one includes considering the differences in the ways that the programs would operate and the effectiveness of the programs.

In the case of the Minimum and Recommended Scenarios, both rely on the recommendations for the LID process as the vehicle that will deliver projects. This means that the primary way that projects will be implemented is based on property owner support through the LID process.

A difference here, however, lies in the effectiveness of the Recommended Scenario as compared to the Minimum Scenario. While restoring funding to levels that were in place in the early 1990's would certainly be an improvement over the current situation, it is also not likely to be enough to encourage property owners to support an LID.

In comparison, the additional 20 - 30% of funding support that would be delivered with the Recommended Scenario begins to lower the cost of a project to the point where it becomes attractive to a property owner. While it is certainly more costly in terms of the City's budget, the progress that is made possible by additional funding creates a very effective program.

The Optimum Scenario presents a very different set of issues. Clearly, the funding commitment to this scenario is much greater than the other two, although the net effect to the property owner, at least at this point, would be the same - a reduction of costs by 50%.

The primary difference for this scenario is that, in order to deliver over 16 miles of improvement per year, the City would need to take a very active role in the improvement process. Essentially, the City would need to form districts on its own initiative, with a process in place allowing property owners to opt out if they are opposed.

An opt out process would likely be similar to one in St. Paul, Minnesota. City officials there have set up a program where over 200 miles of street are being improved over the course of 12-15 years.

In this case, St. Paul has come up with a plan showing when and where street improvements will take place. When it is time to design and construct streets, there is a process where property owners may opt-out on any given street if two conditions are met.

First, 75% of the property owners must object to the improvement. Second, the neighborhood association must agree that the street should not be improved. Unless these conditions are met, the streets are improved and the property owners are assessed 25% of the costs.

Clearly, there is not currently the support or funding for this kind of program in the City of Portland. However, if there is a desire to make more progress in improving the 600 mile street inventory, there will be a need beyond a certain number of miles per year where the City would be forced into driving projects rather than responding to property owner or neighborhood demand.

6.4 FUNDING SOURCES

All of the recommended scenarios presented for the development of a Local Street Improvement Program require a higher level of funding than what is available today. In today's fiscal climate, public funds have become more and more scarce as costs and demands for service rise.

There are three primary areas of funding that are appropriate for discussion as the City searches for adequate funding. Each of the three areas, along with some specific revenue sources, are outlined below.

6.4.1 Discretionary Funds

Discretionary funds are tax dollars that the City has near complete say in how they are allocated and spent. Although the funding may need to be spent on a certain type of improvement (e.g., transportation improvements for GTR and Stormwater improvements for storm sewer rates), these sources are not tied to specific projects or areas of the City. There are three primary sources that would be most applicable to local street improvements, described below.

General Transportation Revenue (GTR) - GTR is generated by the State Gas Tax and parking meter fees that the City of Portland collects. Gas Tax is restricted by the State Constitution for use only on transportation related projects. Because of the recent defeat of the statewide gas tax ballot measure, there remains little additional revenue available for use on new projects. As discussed earlier, this is the primary funding source for the Office of Transportation. At this point, the priority for the use of this funding is on preservation and maintenance of the existing City transportation system. There will likely be no available GTR for use on new projects until the statewide gas tax is increased.

General Fund (Property Tax Revenues) - Property taxes are one of the largest sources of revenues that the City receives. Currently, these dollars are not used to fund the Office of Transportation, but instead are used as the primary source of funding for the Fire and Police Bureaus, Parks, and schools. Like GTR, the availability of General Fund money for new projects or programs is limited, in this case due to the effects of Measures 5 and 47/50.

Storm Sewer Rates (BES) - As part of the fees that residents pay for water use in the City of Portland, residents pay a fee for stormwater management. This money is used by the City to fund programs related to handling stormwater City-wide, including maintaining the existing stormwater system and implementing the Combined Sewer Overflow (CSO) project. Recently, there has been interest in using these funds to help support stormwater improvements that address water quality and quantity issues.

It may be possible that these fees will be able to provide some assistance for a program aimed at improving not just streets but also stormwater conveyance and treatment. This may be especially true for improvements that are providing wider community or watershed benefits.

6.4.2 Grants

Unlike discretionary funds, Grants typically require the City to engage in a competitive process to receive funds. Because of this, granted funding does not typically create a solid funding source to build a program upon.

The most effective way to approach grants is to be opportunistic. It should be a core duty of the LID Administrator to keep abreast of funding opportunities, and to apply for grants that fit an individual project the best.

Community Development Block Grants (CBDG) - These grants, which are received and administered by the City's Bureau of Housing and Community Development (HCD), come from the federal government via the Department of Housing and Urban Development (HUD). These grants are specifically targeted towards low income neighborhoods, and can be used for constructing street and storm sewer improvements.

These grants have been used quite successfully in many of Portland's lower-income neighborhoods in the past. However, like GTR or property tax, this is a shrinking, not expanding, resource.

TEA-21 Grants - TEA-21, or the Transportation Enhancements Act for the 21st Century, is the most recent transportation funding program passed by Congress. These funds are allocated to each State, which in turn allocates funds to the various state jurisdictions. In Portland, these funds come through Metro, which awards the grants.

The criteria used by Metro to select projects does not fit well for local streets or stormwater improvements. Rather, the focus of the criteria is on supporting the Metro 2040 Plan by emphasizing projects that support Regional and Town Centers, Main Streets, access to transit, and multi-modal improvements. Also, projects must be listed on the Regional Transportation Plan (RTP) in order to qualify for funding. In the case of local streets and stormwater improvements, there would be few, if any, opportunities to capture this funding.

Other Federal, State, or Private Grants - As mentioned earlier, there needs to be a concerted effort on the part of the LID Administrator to search and apply for appropriate funding for local street and stormwater projects. One area in particular that may have some potential to assist in funding is the stormwater and environmental area. With the listing of endangered species in the Portland area and the increased focus on minimizing the impact of urban development on stream corridors and water bodies, funding could become available to assist in the construction of projects that make major strides in making water quality improvements.

6.4.3 Other Funding

There are other sources that may warrant pursuit if there is strong enough demand and support in the community to help fund local infrastructure. In these cases, City Council would have the power to create funding mechanisms to support an improvement program.

Urban Renewal Districts - Currently, the Lents Town Center Urban Renewal District is being used to assist in reducing street improvement costs to property owners. The goal behind any urban renewal district is the revitalization of a neighborhood, a goal that in many cases can be supported by investment in public improvements.

Urban renewal districts rely on the future growth of property tax revenues from a defined district to pay for public improvements. In essence, money is borrowed from this future increase to pay for improvements today. Increases in property taxes result from redevelopment in the district, which in some cases is encouraged by the public investment.

While this is a tool that is currently being used in Lents, it is not necessarily applicable to every neighborhood in the City. There must be a level of decay present in order to form the district, since a primary function of a district is revitalization. Also, there is a limit to how much property and property tax revenue can be tied up in urban renewal districts at any one time, a limit that the City is currently approaching.

General Obligation Bond Issue (GOBI) - GOBIs have been used in the City of Portland to fund many useful improvments and programs. Recent examples include bond measures for park improvements, fire station construction and renovation, and library construction and renovation.

These bonds must be passed by an electorate, so any bond issue that would fund transportation or storm sewer improvments would need to be compelling for residents City-wide. Also, bond issues may only pass if there is a majority turnout for an election, unless it is placed on the General Election ballot. If this is an option that is to be pursued, a great amount of thought and outreach will need to take place in order to craft a GOBI that will deliver projects that the public thinks are important and are willing to support financially.

New Funding Sources - Where there is an obvious need and community support, City Council has also implemented new funding sources that address infrastructure needs. The most recent examples are the Transportation and Parks System Development Charges (SDCs), which are collected from new development as a means to mitigate their impact on the system and pay for projects that benefit the broader community. As with GOBIs, any new funding source will need to involve a well thought out approach and be supported by the Portland community.

7.0 IMPLEMENTATION STRATEGY AND ACTION PLAN

The recommendations contained within this report are the result of a great deal of work by City staff and community members alike. To help ensure that recommendations made as part of the redesign process are carried forward, an action plan has been developed for implementing the LID Redesign recommendations.

The action plan presented on the following pages clarifies tasks that need to be completed to fully implement the recommendations in this report, as well as areas that require a greater amount of study. Each of the critical tasks is listed, along with the proposed time frame for completion, whether additional funding is required, and the responsible party or parties for implementing the particular tasks.

It should be noted that one of the items, the policy and procedure manual, is intended to take the recommendations contained within this report and incorporate them within a reference manual for City employees involved in the LID process. This will become a very powerful resource for City staff, and will help to ensure that many of the recommendations that have been made, which do not require further action by City Council, are in fact picked up and put into action by the City.

This action plan serves as a summary of tasks that City staff must pick up and complete to fully implement the recommendations of this process. The completion of the LID Redesign process is not the end of an effort to work with property owners and citizens on how to improve local infrastructure; rather, a new beginning for this process lies in the work outlined on the next two pages.

ACTION ITEM	Time Frame				Funding	Responsible Bureau
	6 Months	1 Year	3 Years	Ongoing		
Adopt Required Code Changes to the LID Process: • Resolution of P,S & E Hearing • Determination of Support for LIDs • Bureau General Overhead Charges • Length of Comment Period • Clarification of Responsibilities - Auditor, LID Administrator, Responsible Bureau, Commissioner in Charge	○				Funded	PDOT - LID Admin.
Adopt City Code changes related to street maintenance	○				Funded	PDOT - LID Admin.
Adopt City Code changes requiring early disclosure of waivers by sellers of property	○				Funded	PDOT - LID Admin.
Develop explanatory mailing to property owners with waivers	○				Funded	PDOT - LID Admin.
Develop outreach material and process for lenders, title companies, realtors, and other related professions to educate the industry on issues related to unimproved and substandard streets and waivers	○			○	Funded	PDOT - LID Admin.
Develop and implement Local Street Improvement Program	○				Funded	PDOT , BES - LID Admin.
Develop and distribute LID brochure for property owners on unimproved or substandard streets	○				Funded	PDOT - LID Admin.
Establish an Intergovernmental Agreement (IGA) between the Auditor's Office and PDOT, BES, and Water that assigns financial responsibility for lien accounts to the sponsoring bureau on LID projects	○				Funded	PDOT, BES, Water, Auditor

ACTION ITEM	Time Frame				Funding	Responsible Bureau
	6 Months	1 Year	3 Years	Ongoing		
Develop work scope to establish a neighborhood based infrastructure implementation plan		○			$30,000	PDOT, BES, Planning, Water
Develop policy/procedure manual for the LID process		○			Funded	PDOT - LID Admin.
Explore alternative financing model allowing property owners to utilize the LID process for privately contracted public improvement projects that meet City standards		○	○		$30,000	PDOT - LID Admin.
Implement and evaluate pervious paving test project, and generate recommendations for the use of pervious paving on City streets.		○	○		$250,000 - $500,000	PDOT, BES
Evaluate effectiveness/utility of waiver system (post-implementation of LID recommendations).			○		$25,000 - $30,000	PDOT - LID Admin.
Evaluate and modify LID process recommendations.				○	Funded	PDOT - LID Admin.
Research and pursue alternative funding opportunities that may help subsidize local street improvement efforts.				○	Funded	PDOT - LID Admin.