

CITY COUNCIL AGENDA ITEM
CITY OF SHORELINE, WASHINGTON

AGENDA TITLE: Pedestrian Facility Comprehensive Study Interim Report
DEPARTMENT: Public Works
PRESENTED BY: Jill M. Marilley, PE, City Engineer

BACKGROUND

The purpose of this item is to provide an overall view of the current inventory of our sidewalks and what design decisions and financial impacts should be addressed to develop additional pedestrian facilities in the City of Shoreline.

As you are aware, the City of Shoreline developed under King County development standards. At the time most homes were built there were no requirements for sidewalks to be constructed. As a result, many of our neighborhoods do not have the traditional curb, gutter and sidewalk facilities we see in more recent developments. Since incorporation, we have required developers to install a curb, gutter and sidewalk standard or allowed them to provide a "fee in lieu of improvements".

Previous sidewalk analyses since incorporation have focused on specific needs or had a focused interest. For example, the previous Bond Committee work in 2002 focused on school zones only and the Sidewalk & Curb Ramp Repair Program focuses on adding curb ramps to existing sidewalks only as well as repairing existing concrete sidewalk. To date, Shoreline has not developed a comprehensive sidewalk plan. As we near completion of the 2004 – 2005 Comprehensive Plan review and potential adoption of our first Transportation Master Plan, we provide the following to start a discussion of sidewalks in Shoreline.

As part of this report we will use two different terms for the sidewalk system. "Sidewalk" will refer to the traditional curb, gutter and sidewalk system and "pedestrian facility" will refer to any area that is designated for pedestrians.

DISCUSSION

Existing Facilities

As you can see from Attachment A, Existing Pedestrian Facilities, Shoreline has substantially complete sidewalk systems in a number of major arterial corridors. The east/west corridors of N/NW185th Street, Richmond Beach Road and N 155th Street appear substantially complete. 15th Avenue NE and Meridian Avenue North are excellent examples of north/south routes that provide complete or close to complete systems. Upon completion of the already programmed CIP work, Aurora will have complete sidewalks and the Interurban Trail will provide an excellent north/south trail

route. Please note that Attachment A is a work in progress as we verify and map the results especially regarding non-traditional facilities such as asphalt paths and widened shoulders.

As part of the Transportation Master Plan an inventory of pedestrian sidewalks was completed that identified where facilities are still needed on arterials only. Please note that we are addressing arterials in this analysis due to the magnitude of the need. Residential streets will continue to have sidewalks constructed as part of redevelopment.

Pedestrian Facilities Analysis

In the traditional method of public works construction, citizens are familiar with concrete curb, gutter and sidewalk providing an area for pedestrians to be and remain separated from vehicular traffic. However, as part of this study we investigated the numerous applications of pedestrian facilities that were possible beyond the traditional sidewalk. Obviously, not all applications are possible in all areas without considerable cost and, in trying to extend the impact of limited funding, it was important for us to be creative in the solutions for every street.

Appendix B provides a visual presentation of the numerous potential applications for pedestrian facilities beyond the traditional standards. For this programs analysis we included the following descriptions of pedestrian facilities (see Attachment B):

- Traditional Concrete Curb, gutter and Sidewalk
- Separated Pathway with Swale
- Separated Pathway with Swale or Planting Strip and On-Street Parking
- Separated Pathway on Fill or Wall, with Swale
- Separated Pathway Below Road Grade
- Separated Pathway Above Road Grade
- Separated Pathway on Wall
- Separated Pathway on Boardwalk
- Widened Shoulder (with or without culvert)
- Widened Shoulder with ditch or swale

Please note that widened shoulders are not a strong recommendation and are only to be applied when no other solution can be built or financed. In later phases of our analysis we will be working closely with the Traffic Engineer, Rich Meredith, to find areas where this can be done inexpensively in advance of future sidewalks.

After identifying these possibilities and the potential standard that could be applied, we then reviewed the work already completed in the as-yet unadopted Transportation Master Plan. In the sidewalk section of this plan all arterials in the City were analyzed and a weighted criteria evaluation was utilized. The weighted criteria included school access issues, connections to parks, connections to existing sidewalks, linking 3 or more major destinations and connections to bus lines. It also addressed whether it was part of the 2002 Bond Committee recommendation to the City Council. From this weighted criteria a list of priorities was created and Priority 1, 2 and 3 sidewalk lists were developed. Please see Attachment C "Priority Pedestrian Projects" for the Transportation Master Plan Priorities 1 and 2. For the timing of this analysis we did not pursue estimating Priority 3 sidewalks and will continue to do so as this study continues.

With this list and with the potential options we then began a phase of gathering information to determine which of the facility options would be most effective for each segment to create a range of costs.

The next steps for this program development will include investigating Priority 3 segments and evaluating our prioritization system. Additionally, we will begin a Neighborhood Traffic Plan that may include sidewalk components and allow the citizens of the neighborhood to help prioritize the sidewalk segments. In this way we can address citizen priorities.

FINANCIAL IMPACT

Financial Estimates

For all options we utilized planning level estimates. Actual detailed costs would not be developed until we have an established program and final priorities. For Attachment B, Transportation Master Plan Priority 1 and 2, the range of costs would be \$15 million for concrete sidewalk to \$8 million for other pathway solutions. Widened shoulders are considered the least cost alternative and, as mentioned above, are not recommended as a permanent solution.

As an example of what could potentially be built and in what manner, we developed a representation on Attachment D, "Possible Scenario \$2 Million – 6 Year CIP Program". This \$2 million program completed over 6 years has a mix of traditional and alternate pedestrian facilities and would address a number of different locations (one side of street only). The map in Attachment D is intended to only be a representation of what is possible in a \$2 million, 6 year CIP program. It is not intended to specifically recommend these locations and type of installation as a final recommendation. Additionally, it does not represent the possible benefits that shoulder widening could provide to the program.

Financial Resources

As part of this program it will be critical to leverage any City funds with outside grant sources, surface water funds, other partnerships and future new revenue resources.

Grant resources could include state funds that might become available. For example, the Transportation Improvement Board has a small program for urban arterial sidewalks. However, this program is highly competitive due to limited resources dedicated to the project.

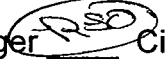
Surface Water funds would be a partner only where installation of the Pedestrian facility changes surface water flows or requires an improvement to the surface water system to install the facility.

Other partnerships could include the Shoreline School District. Some grants become available only with the participation of the School District. Finally, future new revenue resources would have to be identified by City Council as acceptable and could include a bond proposal.

SUMMARY/RECOMMENDATION

No City Council action is required at this time. The purpose of this report and the presentation is to provide possible program solutions to the sidewalk discussions and begin potential financial resource evaluation in the next year.

Attachments: A Existing Facilities
 B Cross Sections of possible Pedestrian Facilities
 C Transportation Master Plan Priority 1 and 2 segments
 D Potential \$2 million Program for a Six Year CIP

Approved By: City Manager  City Attorney 

Existing Pedestrian Facilities

- Traditional Sidewalks**
 CIP Sidewalks/ Interurban Trail 37,996 LF
 Existing Concrete Sidewalk (2004) 361,781 LF

Pedestrian Facilities
(All weather, hard surface facilities)

- Asphalt Paths 22,516 LF
 Widened Shoulders (Asphalt Shoulders at least 4' wide from fog line) 58,231 LF

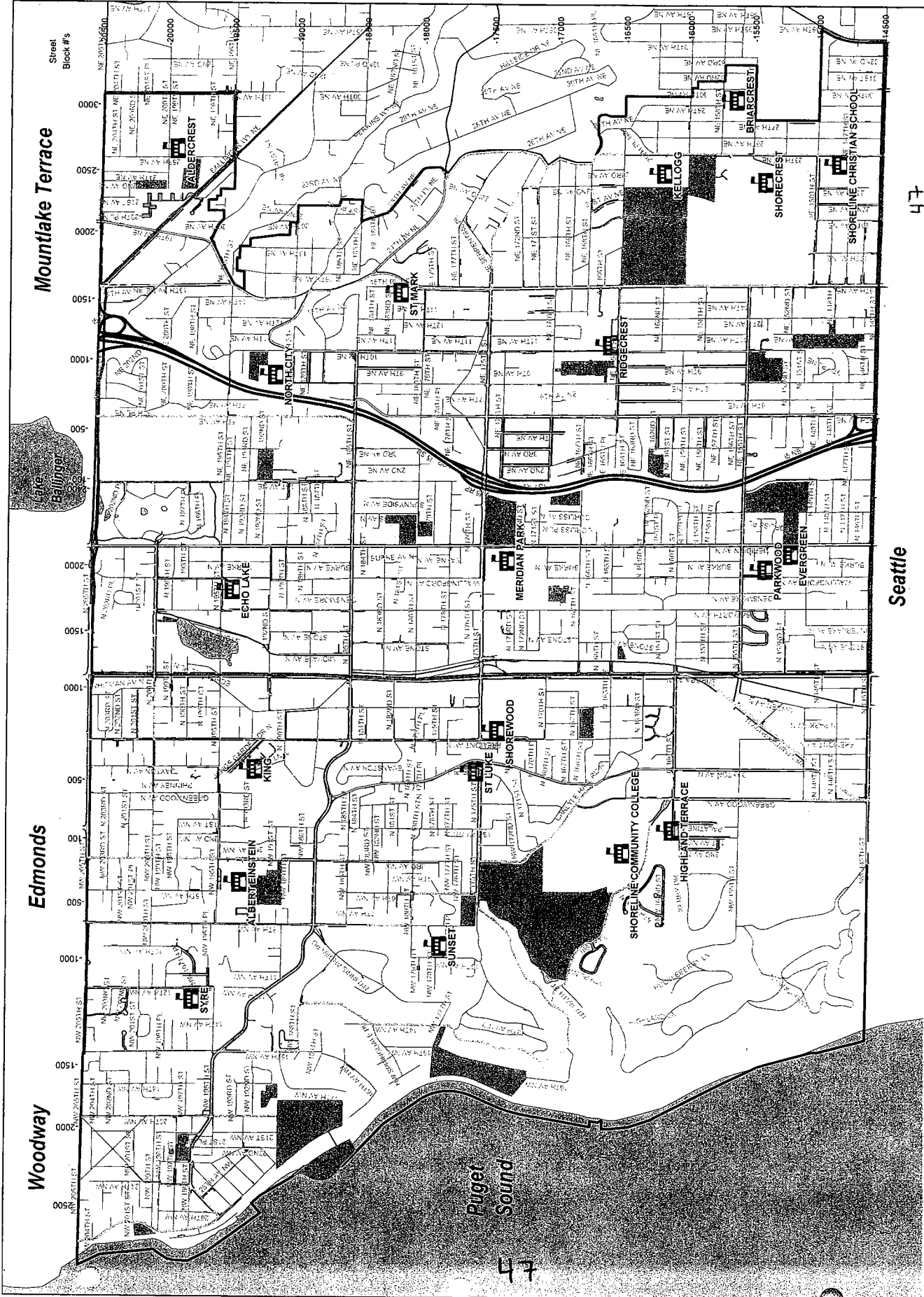
- Schools
 Park

Street

- Arterial Class**
 Interstate
 State Route
 Principal Arterial
 Minor Arterial
 Collector Arterial
 Residential Street
 Outside Shoreline
 City Boundary



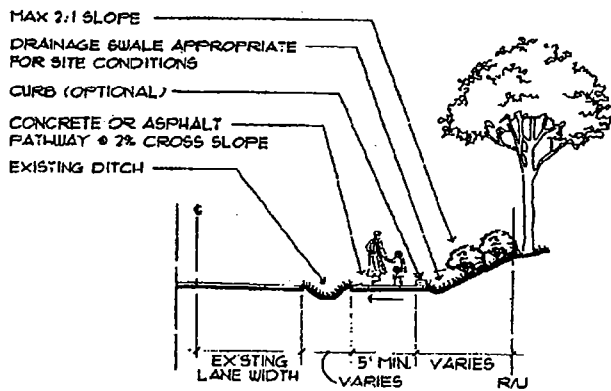
Print Date: April 14, 2004
 Project: Shoreline Pedestrian Facilities
 Map Scale: 1" = 1000'



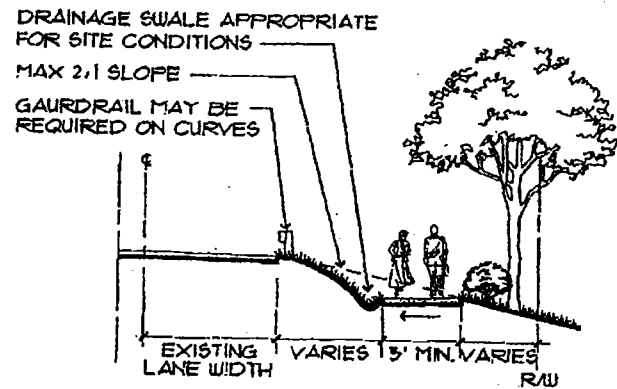
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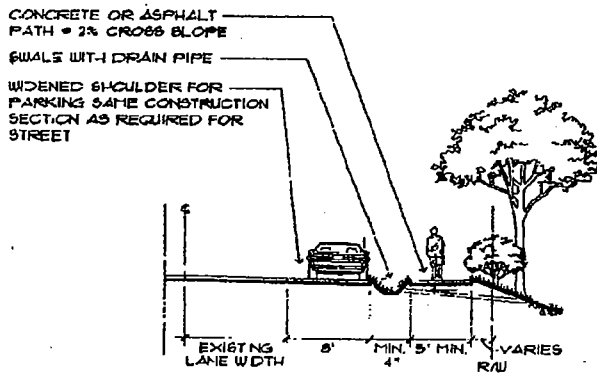
Alternative Pathway Concepts



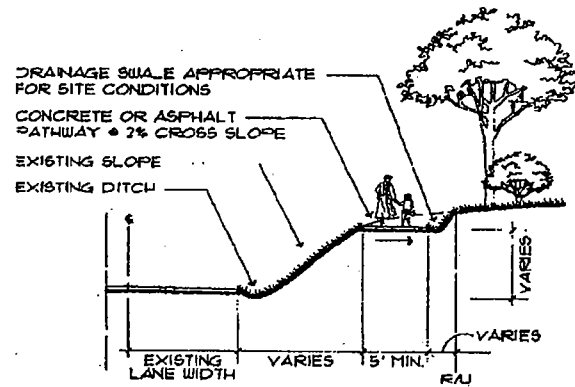
Separated Pathway with Swale



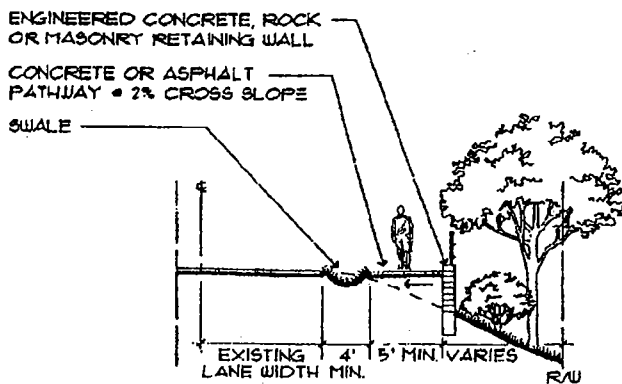
Separated Pathway below Road Grade



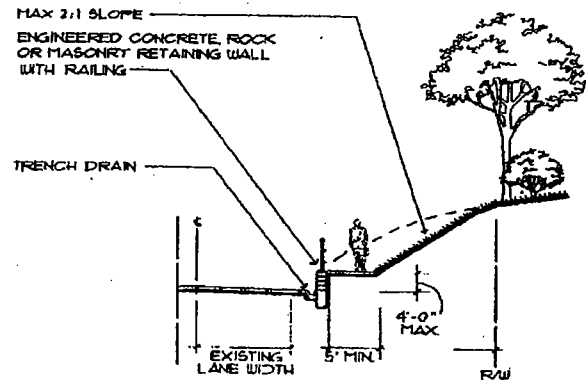
Separated Pathway with Swale or Planting Strip and On-Street Parking



Separated Pathway Above Roadway

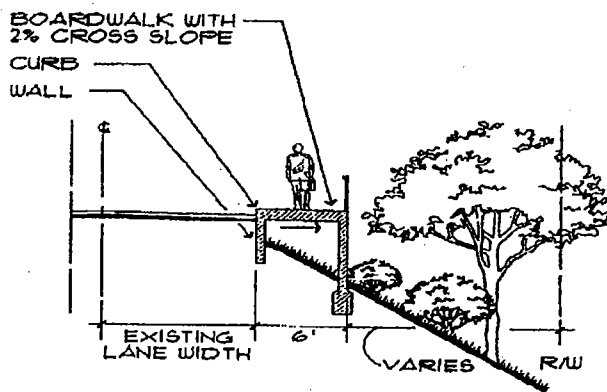


Separated Pathway on Fill or Wall with Swale

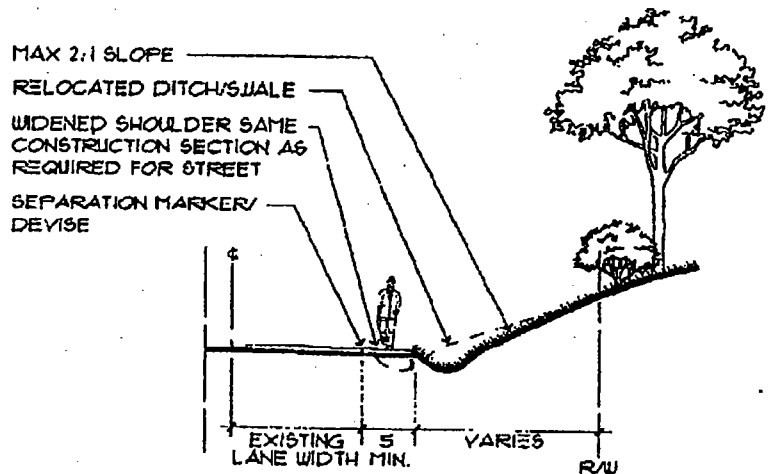


Separated Pathway on Wall

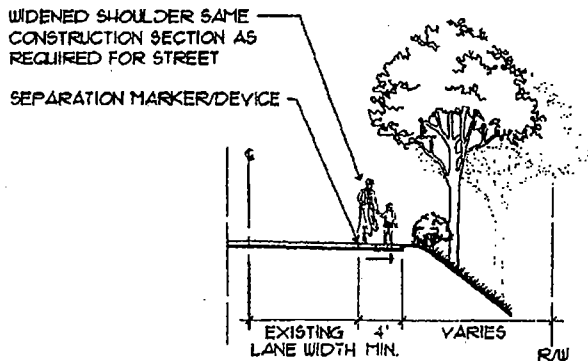
Alternative Pathway Concepts



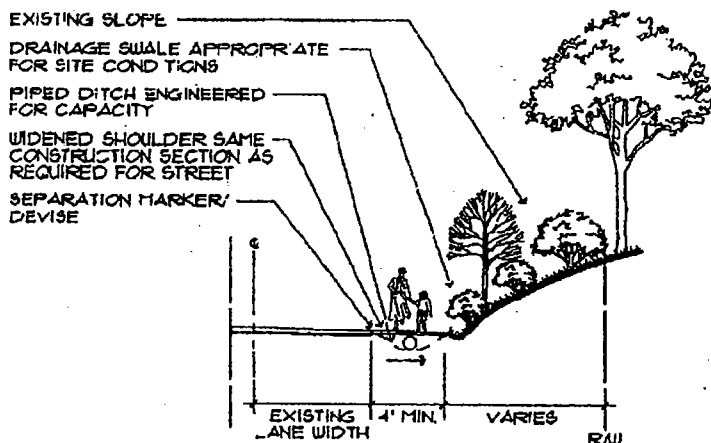
Separated Pathway on Boardwalk



Widened Shoulder with Ditch or Swale



Widened Shoulder



Widened Shoulder with Culvert

**Priority
Pedestrian
Projects**
Pedestrian Projects
Transportation Master Plan
February 2005

Priority 1 Projects
11.5 Road Miles (60,720 LF)
Estimated Cost Range
of Improvements =
\$8 - \$15 million

Priority 2 Projects
10.2 Road Miles (53,856 LF)
Estimated Cost Range
of Improvements =
\$10 - \$22 million

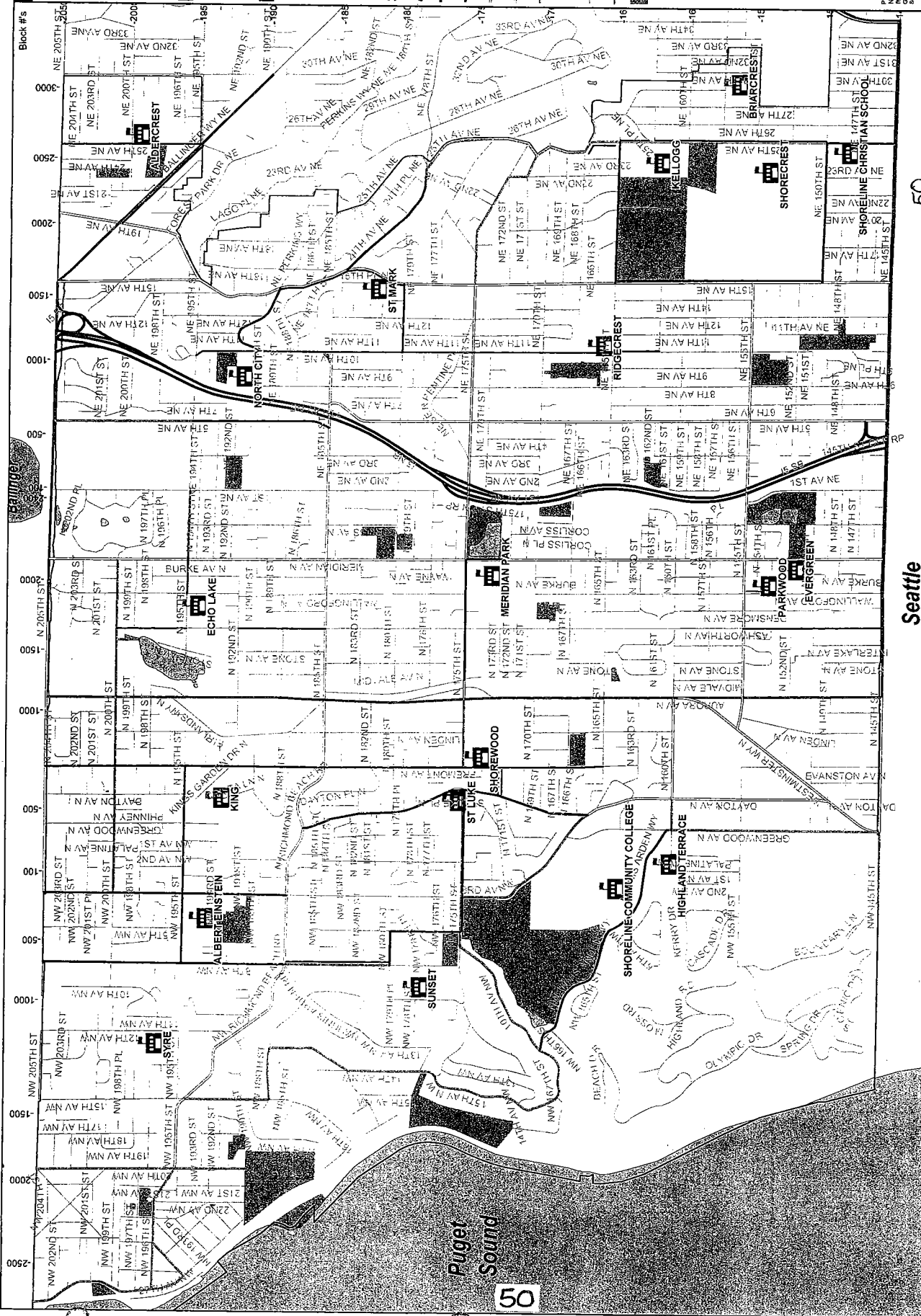
- Schools
- Street**
- Arterial Class**
- Interstate
 - State Route
 - Principal Arterial
 - Minor Arterial
 - Collector Arterial
 - Residential Street
 - Outside Shoreline
 - City Boundary
 - Park



0 300 600 900 1200 1500 1800 2100 2400



Print Date: April 14, 2004
Map Accuracy: Map is for general information only. It is not intended to be used for engineering, surveying, or other professional purposes. The City of Shoreline is not responsible for any errors or omissions on this map.



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Seattle

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Possible Scenario
\$2 Million - 6 Year
CIP Program

City Funded Projects
Curb, Gutter,
and Sidewalk

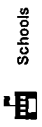
Separated
Pathway
with Swale

Potential Partial
Grant Funded Projects
Curb, Gutter,
and Sidewalk

Other Agencies
(No cost)

Curb, Gutter,
and Sidewalk

Note: All segments
one side of street only



Schools

This map is intended to only be a
representation of what is possible
in a \$2 million, 6 year CIP
program. It is not intended to
specifically recommend these
locations and type of installation
as a final recommendation.



CITY OF
SHORELINE

Mountlake Terrace

Edmonds

Woodway

Seattle