Council Meeting Date: April 23, 2001 **Agenda Item: 8(a)**

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Motion To Accept The Lowest Responsive Bid and Adopt Ordinance No. 269 Amending the General Capital Fund for the Shoreview Park Improvement Project
DEPARTMENT:	Public Works
PRESENTED BY:	William L. Conner, Public Works Director wlc

EXECUTIVE / COUNCIL SUMMARY

The purpose of this report is to obtain your Council's approval of the low and responsive construction bid for the Shoreview Park Improvement Project. Staff is also seeking the adoption of Ordinance No. 269 (Attachment A) increasing the Budgeted General Fund Capital expenditures by $793,166 allowing this project to be completed in 2001. This project is included in the City's 2001 – 2006 Capital Improvement Program (CIP).

The project scope of work and base bid (Attachment B) is consistent with the 2001 – 2006 CIP and includes the construction of a new "Little League" baseball field, parking lot, restroom facility and a children's play area. Pedestrian paths will be completed to connect the existing features in the park. Frontage improvements will be required to meet applicable permit requirements. The plans and specifications included the following two bid alternatives for your Council's consideration:

- Bid alternative 1 includes construction of a second restroom located at the south side of the site nearest to the new ballfield at a cost of $145,590
- Bid alternative 2 includes construction of a second play area located adjacent to the existing soccer field at a cost of $113,064

The Shoreview Park Improvement Project was advertised on January 17, 22, & 24 and on February 23 & 26, 2001. On March 22, 2001, the City Clerk's Office received and opened the following bids from qualified contractors:

Bidder Name	Base Bid	Bid Alt. #1	Bid Alt. #2	Total
1. Ohno	$1,731,231.70	$145,590	$113,064	$1,989,885.70
2. Grade Inc.	$1,759,741.05	$179,729	$119,370	$2,058,840.05
3. Strider Construction	$1,789,237.13	$152,300	$109,500	$2,051,037.13
4. Taggert Construction	$2,064,600.41	$137,922	$89,052	$2,291,574.41
5. Wilder Construction	$2,064,702.87	$135,000	$190,000	$2,389,702.87
6. Callen Construction	$2,139,805.53	$150,000	$100,000	$2,389,805.53
7. Westwater Const.	$2,154,360.10	$160,000	$114,000	$2,428,360.10
8. Construction Int'l	$2,210,150.58	$133,000	$133,000	$2,476,150.58

9. Precision	$2,319,951.21	$159,642	$144,438	$2,624,031.21
10. Katspan, Inc.	$2,538,287.17	$175,000	$220,000	$2,933,287.17
11. Dariotus Construction	$2,800,581.95	$165,000	$125,000	$3,090,581.95

In addition to the base bid and bid alternative costs described above, the project has incurred additional expenses to cover revised design, environmental mitigation, permit and permit appeal administration.

These costs are:

Option 1	$371,667
Option 2	$386,889
Option 3	$394,292

The available funds programmed into the 2001 – 2006 CIP Budget include $1,790,000. Although the 2001 – 2006 CIP does not provide sufficient funding to pay for this project, there are unexpended funds available in the revenue accounts to cover the additional expenses.

Staff has identified three options to complete the project. Each of the options include construction, construction administration, additional design, mitigation, and contingencies that are needed to complete the project. In addition, staff has identified three funding solutions to cover the project-funding shortfall for each of the options. These funding solutions are described in more detail in the background portion of this report.

	Base Bid	10% Contingency	Additional Expenses	Total
Option 1	$1,731,232	$173,123	$371,667	$2,276,022
Option 2	$1,876,822	$187,682	$386,889	$2,451,393
Option 3	$1,989,886	$198,988	$394,292	$2,583,166

Staff has reviewed the low bidder's qualifications and recommends that Ohno be awarded the contract. Staff anticipates that the project will begin mid-May and be completed by mid-October 2001. The schedule is contingent upon the resolution of the appeals associated with the project. The contractor has 120 working days to complete the project. Staff will closely monitor the contractor to minimize any inconvenience to the general public and meet the intended completion date of the project as well as opening use of the little league field.

RECOMMENDATION

Staff recommends that your Council approve Option 3 and adopt Ordinance No. 269 amending the budget to increase the appropriation from the General Capital Fund balance to $2,583,166 to provide funding to complete the Shoreview Park Improvement Project, and authorize the Interim City Manager to execute a contract including the two alternative bids with Ohno, in the amount of $1,989,885.70 and to execute change orders up to 10% of the original contract amount.

Approved By: City Manager KB City Attorney

BACKGROUND / ANALYSIS

The Shoreview Park Improvement Project includes the construction of a new "Little League" baseball field, parking lot, restroom facility and a children's play area. The project also includes the construction of pedestrian paths that will be completed to connect the existing features in the park, and frontage improvements to meet applicable permit requirements. The plans and specifications included the following two bid alternatives for your Council's consideration:

- Bid alternative 1 includes construction of a second restroom located at the south side of the site nearest to the new ballfield

- Bid alternative 2 includes construction of a second play area located adjacent to the existing soccer field

Scope of Work

The base bid work consists of that work included within the scope contained in the 2001 – 2006 CIP. During the public process for this project, several additional items were identified for consideration in the project or were required as permit conditions. These items were:

1. A second restroom next to the Little League field
2. A second children's play area next to the Little League field
3. Additional habitat mitigation
4. A drop off area near the entrance of the park

The base bid includes the drop off area (item #4). Bid alternative #1 includes the second restroom (item #1). Bid alternative #2 includes the second children's play area (item #2). The mitigation work is a permit condition and will be added to the contract after award (item #3).

Project Fees

Some fees necessary to complete the Shoreview Park improvements were unanticipated expenses related to completion of the project. Increases in design, project administration, and anticipated construction administration account for some of the increases necessary to the budget in order to complete any option presented below. Some of these increases are due to variances in proposed fees and actual fees and some were due to additional staff time to support the Clearing and Grading Permit appeal. Also, as part of the permit requirements established by the Planning and Development Services Department, additional site habitat mitigation was added to the park improvements. This work was not included within the base bid but is expected to be performed at the same time by a separate contractor.

Option 1: Revised Budget for Base Bid **$2,276,022**

The base bid includes all those items originally incorporated within the CIP item with the exception of the play area located adjacent to the existing soccer field. Changes recommended by your Council to the construction project cost than programmed in the

CIP were included into the base bid after the Master Plan budget was established. The following provides a breakdown of Option 1:

Base Bid	$1,731,232
Revised Design	$ 24,789
Construction Administration	$ 175,980
Mitigation	$ 145,900
Contingency	$ 173,121
Project Administration	$ 25,000
Total:	$2,276,022

Option 2: Revised Budget for Base Bid + Alternative Bid #1 $2,451,393

The base bid is the same as stated in option 1. Alternative #1 includes the second restroom recommended by your Council after the CIP budget was established. The following provides a breakdown of Option 2:

Base Bid and Alternative Bid #1	$1,876,822
Revised Design	$ 24,789
Construction Administration	$ 191,202
Mitigation	$ 145,900
Contingency	$ 187,680
Project Administration	$ 25,000
Total:	$2,451,393

Option 3: Revised Budget for Base Bid + Alt. Bids #1 and #2 $2,583,166

The base bid and the alternative bid #1 are the same as stated above in option #2. Alternative #2 includes construction of the play area adjacent to the existing soccer field. The following provides a breakdown of Option 3:

Base Bid and Alternative Bids #1 & #2	$1,989,886
Revised Design	$ 24,789
Construction Administration	$ 198,603
Mitigation	$ 145,900
Contingency	$ 198,988
Project Administration	$ 25,000
Total:	$2,583,166

Funding Resources

In order to present funding options for the construction of this project, it is important to give your Council background on some of the final financial results of year 2000 and recap of issues surrounding Initiative 722 (I-722).

As your Council will recall, one of the major issues facing the City during the 2001 budget process was the financial impacts of I-722. In response your Council established a reserve in the amount of $811,574. This amount was set based on possible reductions in property tax ($407,754) and a possible gap in utility tax collections ($404,000) if a referendum was filed that suspended the utility tax ordinance. The funding for establishing the reserve came from a reduction in the project scope of the Shoreline Community College Sports Fields ($614,790) and reserving a portion of the 2001

property tax levy ($196,784). It was understood that your Council could appropriate the reserve for expenditures during 2001 when some of the uncertainties of I-722 were clarified.

We now know that there was no gap in the collection of utility tax and therefore this portion of the reserve can be appropriated for expenditures ($404,000). Although the funding originally came from a reduction in the project scope of the Shoreline Community College Sports Fields project, it is the consensus of staff that it is unlikely that this project will proceed in the near future as originally envisioned, and therefore, staff is recommending that we now allocate these dollars to the Shoreview Park project.

In year 2000 the City collected a total or $2,675,099 in gambling tax. This was $374,099 greater than the budget. In accordance with your Council's policy of allocating any gambling revenue in excess of a 7% tax rate towards capital, this additional gambling tax revenue generated $132,794 for capital purposes. Since this amount was not known during the 2001 budget process, it was not appropriated for capital expenditures. At the end of 2000 this money was placed in the Roads Capital Fund to be used for future capital projects. Staff believes that the funds should now be placed in the General Capital Fund to be used for the Shoreview Park project. This will not require in change in scope or timing of any Roads Capital projects.

Staff is currently preparing information on the final financial results of year 2000 and this information will be presented to the City Council on May 7th. It is evident that there were more revenues collected within the General Fund than was projected during the 2001 budget process and that there were more expenditure savings created than was originally projected. Preliminary results show that this resulted in a greater ending fund balance within the General Fund by approximately $1.5 million. A portion of this money will be reappropriated as it represents expenditures related to projects that were not completed by the end of 2000, but yet will need to be paid for when completed in 2001. Even with this we expect that there will be approximately $1 million additional ending fund balance than was projected. Staff is recommending that of this amount, $106,372 could be appropriated for the Shoreview Park project.

Funding for Option 1 is listed below:

• Existing CIP	$1,790,000
• The 2001 General Capital CIP Contingency Fund	$ 150,000
• I-722 Reserve	$ 336,022
Total:	$2,276,022

Funding for Option 2 is listed below:

• Existing CIP	$1,790,000
• The 2001 General Capital CIP Contingency Fund	$ 150,000
• I-722 Reserve	$ 404,000
• Year 2000 Unappropriated Gambling Revenue	$ 107,393
Total:	$2,451,393

Funding for Option 3 is listed below:

• Existing CIP	$1,790,000
• The 2001 General Capital CIP Contingency Fund	$ 150,000
• I-722 Reserve	$ 404,000
• Year 2000 Unappropriated Gambling revenue	$ 132,794
• 2000 Fund Balance from General Fund	$ 106,372
Total:	$2,583,166

An ordinance has been prepared for your Council's consideration to fund Option 3 outlined above.

RECOMMENDATION

Staff recommends that your Council approve Option 3 and adopt Ordinance No. 269 amending the budget to increase the appropriation from the General Capital Fund balance to $2,583,166 to provide funding to complete the Shoreview Park Improvement Project, and authorize the Interim City Manager to execute a contract including the two alternative bids with Ohno, in the amount of $1,989,885.70 and to execute change orders up to 10% of the original contract amount.

Attachment A – Ordinance No. 269
Attachment B – Shoreview Park Improvement Project Site Plan

Attachment A

Ordinance No. 269

ORDINANCE NO. 269

AN ORDINANCE OF THE CITY OF SHORELINE, WASHINGTON, AMENDING ORDINANCE 254, AS AMENDED, BY INCREASING THE APPROPRIATION IN THE GENERAL CAPITAL FUND, ROADS CAPITAL FUND, AND GENERAL FUND TO BE UTILIZED FOR THE SHOREVIEW PARK PROJECT

WHEREAS, the 2001 Budget was adopted in Ordinance 254; and

WHEREAS, the 2001 – 2006 Capital Improvement Program was adopted in Ordinance 253; and

WHEREAS, the 2001 Budget included funding for the Shoreview Park project; and

WHEREAS, the 2001 – 2006 Capital Improvement Program included the Shoreview Park project and

WHEREAS, there are sufficient resources within the General Capital Fund, Roads Capital Fund, and General Fund; and

WHEREAS, the City wishes to take advantage of the available resources in the General Capital Fund, Roads Capital Fund, and General Fund to fund the Shoreview Park project; and

WHEREAS, the project scope has expanded based upon public and Council input, additional site habitat mitigation is required in the permit, and rising constructions costs have increased the base project cost by $486,022 ; and

WHEREAS Council desires to add a second restroom and playfield to the project increasing the project cost by $307,144;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SHORELINE, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Amending Section 2 of Ordinance No. 254. The City hereby amends Section 2 of Ordinance No. 254, the 2001 Annual Budget, by increasing the appropriation from the General Capital Fund by $643,166 for a General Capital Fund appropriation of $9,620,025 increasing the Roads Capital Fund appropriation by $132,794 for a Roads Capital Fund appropration of $25,415,955; increasing the General Fund appropriation by $106,372 for a General Fund appropriation of $27,287,826 and by increasing the Total Funds appropriation to $81,512,146 as follows:

General Fund	~~27,181,454~~	27,287,826
Development Services Fund	2,459,111	
Street Fund	3,936,604	
Arterial Street Fund	455,955	
Surface Water Management Fund	4,984,987	
General Capital Fund	~~8,976,859~~	9,620,025
Roads Capital Fund	~~25,283,161~~	25,415,955

Surface Water Capital Fund	4,918,100	
General Reserve Fund	1,509,771	
Equipment Replacement Fund	634,972	
Vehicle Operations/Maintenance Fund	94,972	
Unemployment Fund	85,868	
Code Abatement Fund	108,000	
Total Funds	~~80,629,814~~	81,512,146

Section 2. Appropriation for the Shoreview Park Project. This project was included in the 2001 – 2006 Capital Improvement Program (CIP) with a budget of $1,790,000. The revised project scope and additional restroom and playfield have increased the total project cost to $2,583,166, requiring an additional $793,166. The City Manager is hereby authorized to utilize $150,000 from the General Capital Contingency Fund and transfer available funds in the General Roads Capital Fund in the amount of $132,794 and in the General Fund in the amount of $510,372 to the General Capital Fund for the Shoreview Park Project and is authorized to expense the funds to pay for the total cost of the Shoreview Park Project during 2001.

Section 3. Net Impact on the General Capital Fund, Roads Capital Fund, and General Fund. This ordinance does not change the ending fund balance of $2,793,877 in the General Capital Fund, the ending fund balance of $8,945,085 in the Roads Capital Fund, or the ending fund balance of $1,480,983 in the General Fund.

Section 4. Severability. Should any section, paragraph, sentence, clause or phrase of this ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this ordinance be preempted by state or federal law or regulation, such decision or preemption shall not affect the validity of the remaining portions of this ordinance or its application to other persons or circumstances.

Section 5. Effective Date. A summary of this ordinance consisting of its title shall be published in the official newspaper of the City. The ordinance shall take effect and be in full force five days after passage and publication.

PASSED BY THE CITY COUNCIL ON APRIL 23, 2001

_____
Mayor Scott Jepsen

ATTEST:

APPROVED AS TO FORM:

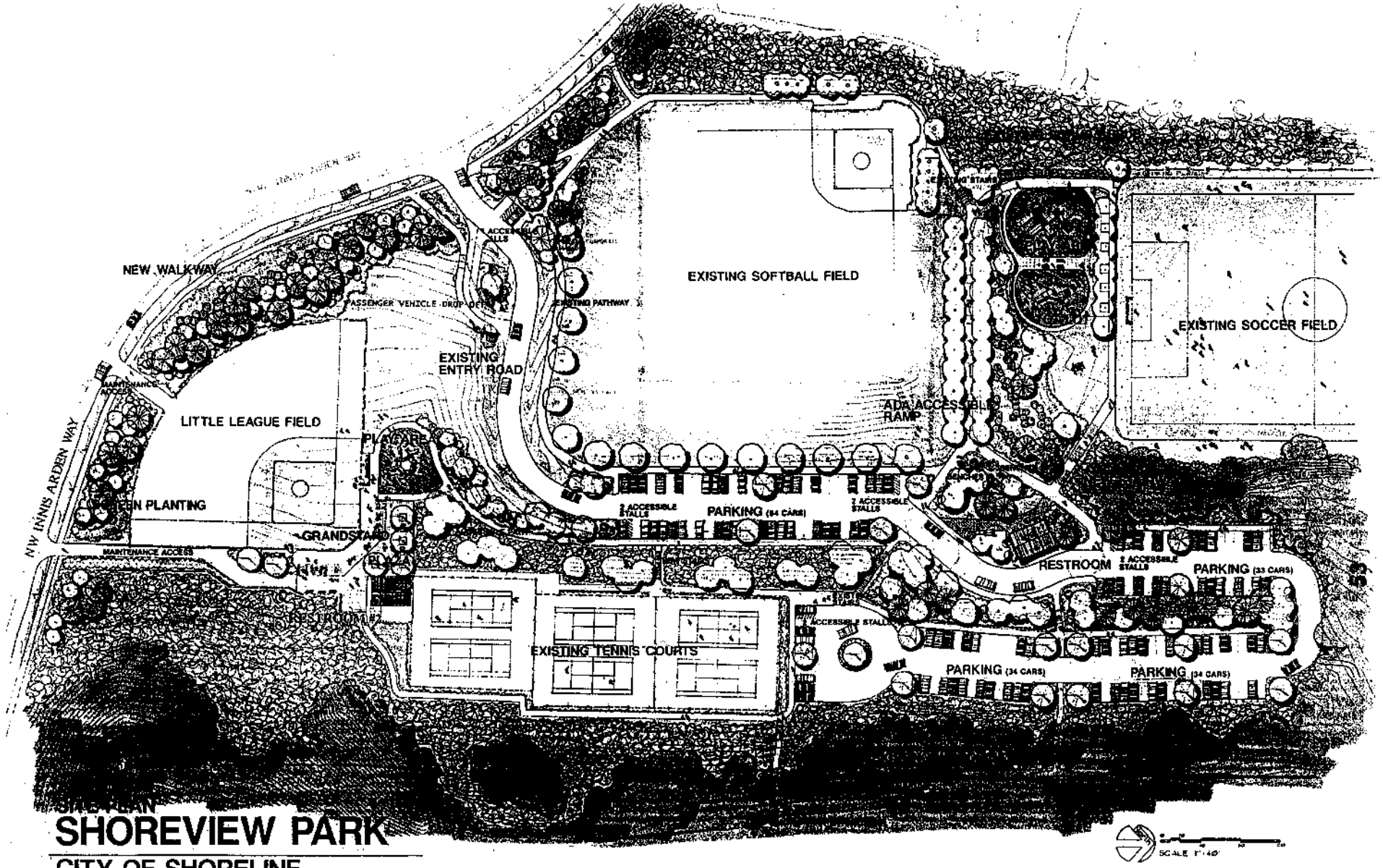
_____
Sharon Mattioli, CMC
City Clerk

_____
Ian Sievers
City Attorney

Date of Publication:
Effective Date:

Attachment B

Shoreview Park Improvement Project Site Plan



SITE PLAN

SHOREVIEW PARK

CITY OF SHORELINE

Council Meeting Date: April 23, 2001 **Agenda Item: 8(b)**

CITY COUNCIL AGENDA ITEM

CITY OF SHORELINE, WASHINGTON

AGENDA TITLE:	Authorize Staff to Proceed with the Design Phase of the 3rd Avenue NW Drainage Improvements Project
DEPARTMENT:	Public Works
PRESENTED BY:	William L. Conner, Public Works Director

EXECUTIVE / COUNCIL SUMMARY

The purpose of this report is to provide your Council with an update on the 3rd Avenue NW Drainage Improvements project and seek your direction on the design options.

Urban flooding is known to occur in an area referred to as the 3rd Avenue drainage area (Attachment A). Residents of as many as 22 homes in the 3rd Avenue drainage area describe their flooding as frequent. Modeling confirms these statements (Attachment B). Residents in this drainage basin experienced severe flood damage during the 1996/1997 New Year's eve storm, an 80-year event (Attachment C – Flooding Photos). These conditions placed this project at a high priority in the establishment of the City's Capital Improvement Program.

The goal of this project is to evaluate, design and construct long-term drainage improvements within the 3rd Avenue drainage area to alleviate flooding impacts, damage, and cost to private and public property up to the City's standard of a 25-year storm event. In addition, the impacts of larger storm events will be far less than currently experienced. The City is now completing the 3rd Avenue Drainage Study, the first phase of the 3rd Avenue NW Drainage Improvements project. This study identifies solutions to the flooding problem as well as means to protect Boeing Creek. Improvements to the conveyance system include a new storm drain mainline along one of the two following routes.

Option 1 - 3rd Avenue Conveyance Solution (Attachment D)
Option 2 - 6th Avenue Conveyance Solution (Attachment E)

Both routes would adequately convey the storm water and according to preliminary estimates would cost about the same, approximately $1,500,000. Both drain to North Pond that empties to Boeing Creek. Economics, traffic impacts, and utility conflicts will ultimately determine the preferred route.

Construction of a new storm drain system will solve the flooding problem for residents. However, the storm water will reach Boeing Creek faster, which could cause problems

for habitat and exacerbate stream bank erosion. This requires construction of a storm water storage/detention facility. Staff has explored two options.

Option A would expand the existing North Pond (Attachment F). The advantages are that no new park space would be dedicated to surface water management and landscaping and recreational amenities could be added to improve the aesthetics of the park. The disadvantage is that trees would be removed to expand this facility. Landscape improvements, however, could replace a good share of these trees.

Option B would construct a new facility in the Boeing Creek Open Space (Attachment I). The advantages are that it is less likely to fill with water as often or as long as the North Pond thus allowing more year-round use of the park. Constructing this new facility also preserves flexibility for future capacity improvements to the North Pond. The disadvantage is that more trees would be removed to construct this facility than would option A. Again, landscape improvements could replace a good share of these trees.

Each option would cost approximately $500,000.

Aesthetic improvements could include adding natural features, picnic areas, walking paths with interpretive lookouts, and parking. Sketches of these improvements can be found in Attachments G and H for the North Pond and Attachments J and K for the Open Space.

Staff met with the community on September 30, 1999 and again on March 14, 2001 to discuss flooding and the solution options. In general, citizens were impartial to a preferred conveyance route, in favor of expanding the existing North Pond, and supportive of improving habitat value and reducing erosion in Boeing Creek. Staff presented the solution options to the Parks, Recreation, and Cultural Services (PRCS) Committee at their March 22 meeting. The PRCS committee reached consensus to expand the existing North Pond and make it aesthetically pleasing to neighbors.

The City is seeking 1.9 million dollars of funding for this project through the Washington State Public Works Trust Fund Construction Loan Program. The design and construction cost estimate is approximately 2.5 million dollars. The Public Works Trust Fund matching funds of $600,000 will come from the City of Shoreline Surface Water Management CIP Fund.

Once your Council concurs with the conveyance and detention options for design of the 3rd Avenue Drainage Improvements project, staff will proceed with the design phase. Design and permitting would continue through 2001 and construction could begin in 2002.

RECOMMENDATION

Staff recommends that your Council authorize staff to proceed with design of the 3rd Avenue Drainage Improvements consisting of the 3rd Avenue conveyance solution (Option 1) and the North Pond detention mitigation (Option A).

Approved By: City Manager KB City Attorney

BACKGROUND / ANALYSIS

Urban flooding is a problem in the North Pond drainage area. The North Pond drainage area is an urbanized watershed of approximately 700 acres and represents the northern portion of the Boeing Creek drainage basin, a drainage area of approximately 1,600 acres. The North Pond drainage area (Attachment A) extends from NW 203rd to NW 175th Street and from Fremont to 8th Avenue NW and encompasses familiar landmarks such as Hillwood Park, Einstein Middle School, Crista Ministries, and Panterra Pond. This area drains to the Boeing Creek North Detention Pond (North Pond) located at the intersection of NW 175th Street and 6th Avenue NW. The North Pond was built by King County in 1990 and 1991 to address the needs for storm water detention control in the Boeing Creek basin.

Urban flooding is known to occur in two areas within the North Pond drainage area. One area, referred to as the 3rd Avenue drainage area, a sub-area of the North Pond drainage area, is the basis for the 3rd Avenue NW Drainage Improvements Project, the subject of this report. This area is described below in more detail. The second area is located downstream of Panterra Pond at Dayton Place N and N 183rd Street. The City is in the process of formulating a CIP project to address flooding in this area.

Existing Conditions

Residents of as many as 22 homes in the 3rd Avenue drainage area have described their flooding as frequent. Modeling confirms these statements (Attachment B – Frequency of Flooding). The area of flooding lies between 3rd and 6th Avenue NW from NW 176th Street to Richmond Beach Road. The neighborhood that experiences flooding is located in an area that used to be a natural drainage course to Boeing Creek. Over forty years ago this natural drainage course was rerouted into ditches and culverts so that single-family homes and access roads could be built. Urbanization of the area over the past half century has caused the volume of storm water to exceed the capacity of the drainage system. Since the early 1980's, moderate storms have caused homes to experience flooding.

Residents in this drainage basin experienced severe flood damage during the 1996/1997 New Year's eve storm, an 80-year event (Attachment C – Flooding Photos). A Local Proclamation of Emergency was declared by the City Manager through a Resolution by your Council. These conditions placed this project as a high priority in the establishment of the City's Capital Improvement Program in 1998. These same storm events resulted in the washout of the intersection at NW 175th Street and 6th Avenue NW during the night of December 31, 1996 taking with it a portion of the North Pond embankment. The intersection and the North Pond embankment were restored by May 1997.

It is estimated that as much as 4 acre-feet of surface water was detained in private yards and basements during the 1996/1997 80-year storm. This project must effectively intercept and convey this water and provide equivalent detention storage. The goal of the 3rd Avenue NW Drainage Improvement project is to evaluate, design and construct long-term drainage improvements within the 3rd Avenue drainage area to alleviate flooding impacts, damage, and cost to private and public property up to the City's

standard of a 25-year storm event. In addition, the impacts of larger storm events will be far less than currently experienced. The City is now completing the 3rd Avenue NW Drainage Study, the first phase of the 3rd Avenue NW Drainage Improvements project, to identify solutions to the flooding problem.

Conveyance Solutions

A study of the existing storm drain system in the area of flooding shows it is has inadequate capacity for the volume of runoff flowing through this neighborhood. One solution would be to purchase properties impacted by flooding and create a detention basin in place of the homes. While this is a viable solution, it would severely impact citizens. The cost is up to four times more expensive than making improvements to the storm drain system. In addition, the loss in the tax base for these properties would impact schools, utilities, and the City for years to come. Another solution would be to upgrade this existing drainage system. These upgrades are difficult because the pipe runs through private property with no easements or right of way. Instead, the study investigated improvements to the storm drain system adjacent to the area of flooding since much of the water flowing through this neighborhood is overflow from the surrounding area. Constructing a new conveyance system in the right of way is easier for construction and maintenance. The goal is to intercept and divert flows away from the neighborhood system. The regained capacity in this neighborhood system along with the new conveyance system will provide this neighborhood with additional protection beyond the 25-year storm.

The conveyance solution improvements include a new storm drain mainline, along one of the two following routes described below.

Option 1 - 3rd Avenue Conveyance Solution (Attachment D)
3rd Avenue from Hillwood Park entrance, south to NW 176th Street, then west on 176th Street to 6th Avenue NW, then south on 6th Avenue NW to NW 175th Street. Improvements include: 7,200 feet of 18 to 42 inch concrete storm drain, 10 Type 1 catch basins, 31 Type 2 catch basins, and 73,000 feet of deep pipe trenching (10-20 feet).

Option 2 - 6th Avenue Conveyance Solution (Attachment E)
3rd Avenue NW from Hillwood Park entrance, south to NW 185th Street, then west on NW 185th Street to 6th Avenue NW, then south on 6th Avenue NW to NW 175th Street. Improvements include: 6,000 feet of 18 to 42 inch concrete storm drain, 7 Type 1 Catch Basins, 28 Type 2 Catch Basins, and 120,000 feet of deep pipe trenching (10-20 feet).

Both routes would adequately convey the storm water and would cost about the same, approximately $1,500,000. The 3rd Avenue route could potentially intercept more surface water flowing into the valley than the 6th Avenue route. Economics, traffic impacts, and utility conflicts will ultimately determine the preferred route.

Detention Mitigation

Construction of a new storm drain system will more quickly drain the storm water rather than allowing it to flood. Uncontrolled discharge of this water to Boeing Creek would exacerbate stream bank erosion and cause problems for stream habitat. The King County Surface Water Management guidelines adopted by the City of Shoreline, as well

as restrictions imposed by Endangered Species Act and Washington Department of Fish and Wildlife, require that discharge rates to Boeing Creek not be increased. To protect Boeing Creek and mitigate for these impacts, the storm water must be detained and released in a controlled fashion. Since no facility exists to handle the additional flows, two locations were identified that could provide the minimum required storage volume (4 acre-feet).

Option A - North Pond (Attachment F)
Expand the existing facility located in the southeast corner of the intersection of NW 175th Street and 6th Avenue NW.

Advantages:

- Existing park space dedicated to surface water management could be improved to be made more useable park space for the public
- Landscaping and recreational amenities could be added that would disguise the existing drainage structures and improve the aesthetic of the park

Disadvantages:

- Expands the existing facility from 8 acre-feet to at least 12 acre-feet of storage
- Trees would be removed to expand this facility. Landscape improvements, however, could replace these trees

Option B - Boeing Creek Open Space (Attachment I)
Construct a new facility in the open space located in northwest corner of the intersection of NW 175th Street and 6th Avenue NW.

Advantages:

- Creates new park space
- Could be operated in series with the North Pond making it less likely to fill with water as often or for as long as the North Pond thus allowing more year-round use of the park
- Constructing this new facility preserves flexibility for future capacity improvements to the North Pond

Disadvantages:

- More trees would be removed to construct this facility than would option A. Landscape improvements, however, could replace these trees
- The open space is disturbed

Both options would cost about the same, approximately $500,000, and both options could:

- Provide the capacity to mitigate flows and protect Boeing Creek;
- Provide a positive park experience by educating park users about the hydrologic cycle and creating a public use space with added value to the community and environment; and
- Improve park amenities and aesthetic value by blending drainage structures into a landscaped park environment.

Aesthetic improvements could include natural landscaping features such as rocks, trees, plantings, waterfalls (during flows), and streambeds; picnic areas; walking paths with bridges and interpretive lookouts; and parking. A permanent pool feature was considered but is not being recommended due to the pervious soil conditions and an inconsistent supply of fresh water. This means there will be standing water in the pond only during storm events. Plan and profile sketches of these improvements can be found in Attachments G and H for the North Pond Detention Mitigation and Attachments J and K for the Open Space Detention Mitigation.

Public Involvement

A community workshop was held on September 30, 1999 to gather first-hand information from residents who had observed flooding. The workshop was publicized in a community update newsletter that was mailed to residents in the 3rd Avenue drainage area. Staff met with residents at three locations in the known flooding area, collected testimonials, photographs, and written records of past flooding events. Fifteen families attended. This information provided an understanding of the extent of flooding and was used as a benchmark for the hydraulic modeling conducted as part of the 3rd Avenue Drainage Study. At that time the City was interested in finding an interim solution that would alleviate the severity of flooding while a long-term solution was being developed. Several interim solutions were considered; however, it was determined that a long-term solution was needed in order to make a significant improvement to flooding problem.

A community open house was held on March 14, 2001 at Sunset Elementary School. The open house was publicized in the Community Update #2 newsletter mailed March 7, on Government Access Channel 21 on March 9, a Web site article which ran March 9-14, and an article in both the March Currents and City Source column of the Shoreline Enterprise. Citizens attending the open house visited three stations: Existing Conditions, Conveyance Solutions, and Detention Mitigation. Each station included poster board displays of attachments A through K as presented above. Twenty-seven citizens attended the open house and eleven citizens submitted comment forms. In general, citizens were impartial to a preferred conveyance route, in favor of expanding the existing Boeing Creek North Detention Pond, and supportive of improving habitat value and reducing erosion in the lower reaches of Boeing Creek.

PRCS Committee Consensus

Staff presented the same solution options to the Parks, Recreation, and Cultural Services (PRCS) Committee at their March 22 meeting. The PRCS committee reached consensus to expand the existing Boeing Creek North Pond and make it aesthetically pleasing to neighbors. Committee members and citizens present at the meeting asked about options for providing water quality treatment to reduce the amount of pollutants (i.e., oil and litter) that affect the aesthetics of the pond. The committee was genuinely concerned about the residents being flooded, but they expressed concern about constructing a new facility in the Open Space. They were, however, receptive to the idea if it was determined that another pond was necessary to address flooding problems.

Environmental Considerations

The solutions presented will meet the standard requirements for a storm water conveyance system and storm water storage/detention facility while protecting existing conditions in Boeing Creek. However, additional detention could be provided that would reduce flows to Boeing Creek thereby reducing erosion and improving value to wildlife habitat in the lower reaches of the creek. This would also reduce the amount of sediment being deposited in Hidden Lake thereby reducing annual maintenance to remove the sediment.

Staff Recommendation

Based on the feedback from the community and the PRCS committee, staff recommends the following:

- Design and construct a new storm water conveyance line along 3rd Avenue NW
- Expand and enhance the existing North Pond facility
- Leave the Open Space alone for the time being

Staff is committed to working with citizens during the design phase to ensure their concerns are addressed. In doing so, staff will continue to work with citizens to landscape the pond to make it as natural and aesthetically pleasing as possible and the Parks department to ensure ease of maintenance and operation.

Funding

The City is seeking funding for this project through the Washington State Public Works Trust Fund Construction Loan Program. The Construction Program provides low interest loans for the repair, replacement, and rehabilitation of infrastructure that serves the 20-year GMA population projections. The design and construction cost estimate is approximately $2.5 million dollars. This project is a candidate for a Public Works Trust Fund low interest loan in the amount of $1.9 million dollars. The Public Works Trust Fund matching funds of $600,000 will come from the City of Shoreline Surface Water Management CIP Fund.

Project Schedule

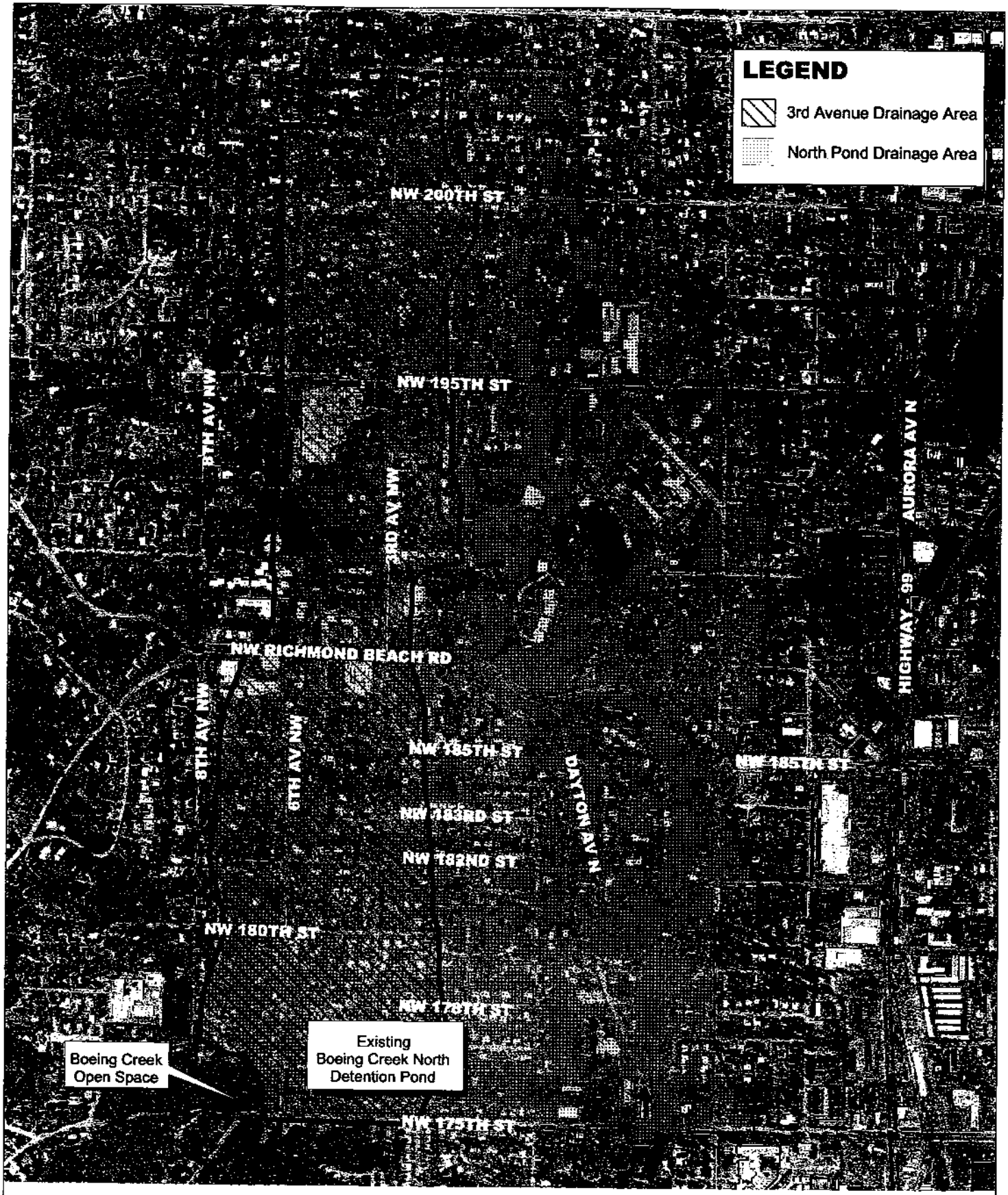
Once your Council concurs with the conveyance and detention options for design of the 3rd Avenue Drainage Improvements project, staff will begin the design phase. Design and permitting would continue through 2001. Depending on the design and ability to phase construction, components of the improvements could be constructed beginning in 2002.

RECOMMENDATION

Staff recommends that your Council authorize staff to proceed with design of the 3rd Avenue Drainage Improvements consisting of the 3rd Avenue conveyance solution (Option 1) and the North Pond detention mitigation (Option A).

ATTACHMENTS

Attachment A: Drainage Basin
Attachment B: Frequency of Flooding
Attachment C: Flooding Photos
Attachment D: 3rd Avenue Conveyance Solution
Attachment E: 6th Avenue Conveyance Solution
Attachment F: North Pond Detention Mitigation (aerial view)
Attachment G: North Pond Detention Mitigation (plan sketch)
Attachment H: North Pond Detention Mitigation (cross-section sketch)
Attachment I: Open Space Detention Mitigation (aerial view)
Attachment J: Open Space Detention Mitigation (plan sketch)
Attachment K: Open Space Detention Mitigation (cross-section sketch)



SHORELINE

City of Shoreline
17544 Midvale Ave. N.
Shoreline, WA 98133
(206) 546-1700

3rd Avenue Drainage Study

Shoreline King County, Washington

STUDY LOCATION AND DRAINAGE BASIN BOUNDARIES

0 450 900 Feet

otak

620 Kirkland Way, Suite 100
Kirkland, Washington 98033
Phone: (425) 822-4446
Fax: (425) 827-9577

Otak Proj. No. 08366.004

Date: December 2000

Attachment A

SHORELINE

City of Shoreline
17544 Midvale Ave. N.
Shoreline, WA 98133
(206) 546-1700

3rd Avenue Drainage Study

Shoreline King County, Washington

REPORTED FLOODING BOUNDARIES
FREQUENCY OF FLOODING MODELED

0 150 300 Feet

otak

620 Kirkland Way, Suite 100
Kirkland, Washington 98033
Phone: (425) 822-4446
Fax: (425) 827-9577

Otak Proj. No. 08366.004

Date: December 2000

Attachment B

ATTACHMENT C
Flooding Photos

Historic Flooding Events

Date: **1/97**
Location:
18417 - 3rd Place NW
Celeste Dang

Date: **1/97**
Location:
18417 - 3rd Place NW
Celeste Dang

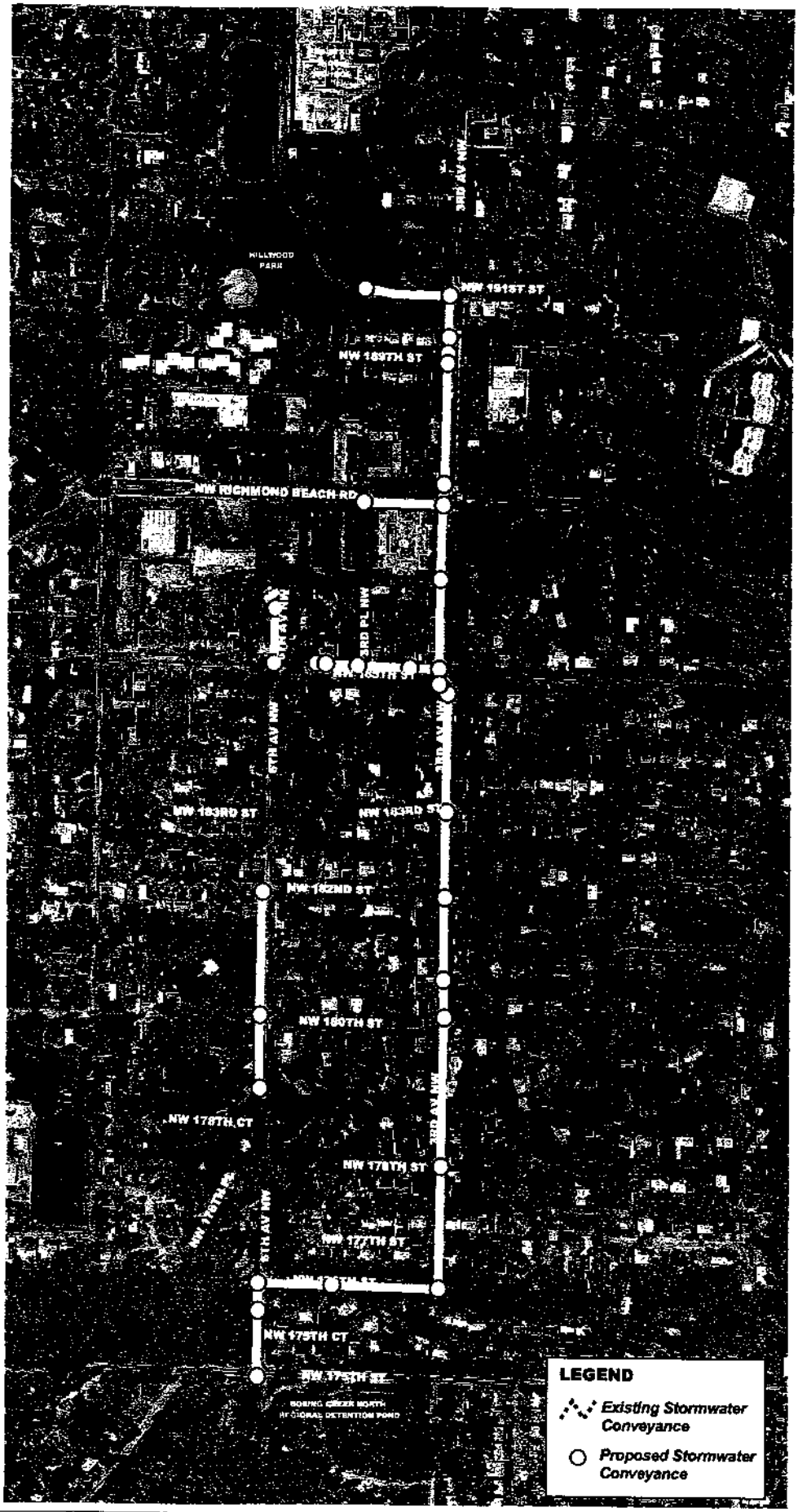
Date: **1/97**
Location:
18417 - 3rd Place NW
Celeste Dang

Historic Flooding Events

Date: **11/78**
Location:
332 NW 183rd Street
Bob & Florence Helgeson

Date: **1/18/86**
Location:
332 NW 183rd Street
Bob & Florence Helgeson

Date: **1/18/86**
Location:
332 NW 183rd Street
Bob & Florence Helgeson



SHORELINE

City of Shoreline
17544 Midvale Ave. N.
Shoreline, WA 98133
(206) 546-1700

3rd Avenue Drainage Study

Shoreline King County, Washington

CONVEYANCE SOLUTION OPTION 1
IMPROVEMENTS ALONG 3RD AVENUE

otak
620 Kirkland Way, Suite 100
Kirkland, Washington 98033
Phone: (425) 822-4446
Fax: (425) 827-9577

Otak Proj. No. 08366.004

Date December 2000

Attachment D

SHORELINE

City of Shoreline
17544 Midvale Ave. N.
Shoreline, WA 98133
(206) 546-1700

3rd Avenue Drainage Study

Shoreline King County, Washington

CONVEYANCE SOLUTION OPTION 2
IMPROVEMENTS ALONG 6TH AVENUE

otak
620 Kirkland Way, Suite 100
Kirkland, Washington 98033
Phone: (425) 822-4446
Fax: (425) 827-9577

Otak Proj. No. 08366.004

Date December 2000

Attachment E

OPTION A - Expand Existing Boeing Creek North Stormwater Detention Pond

Detention Mitigation

3rd Avenue Drainage Improvements

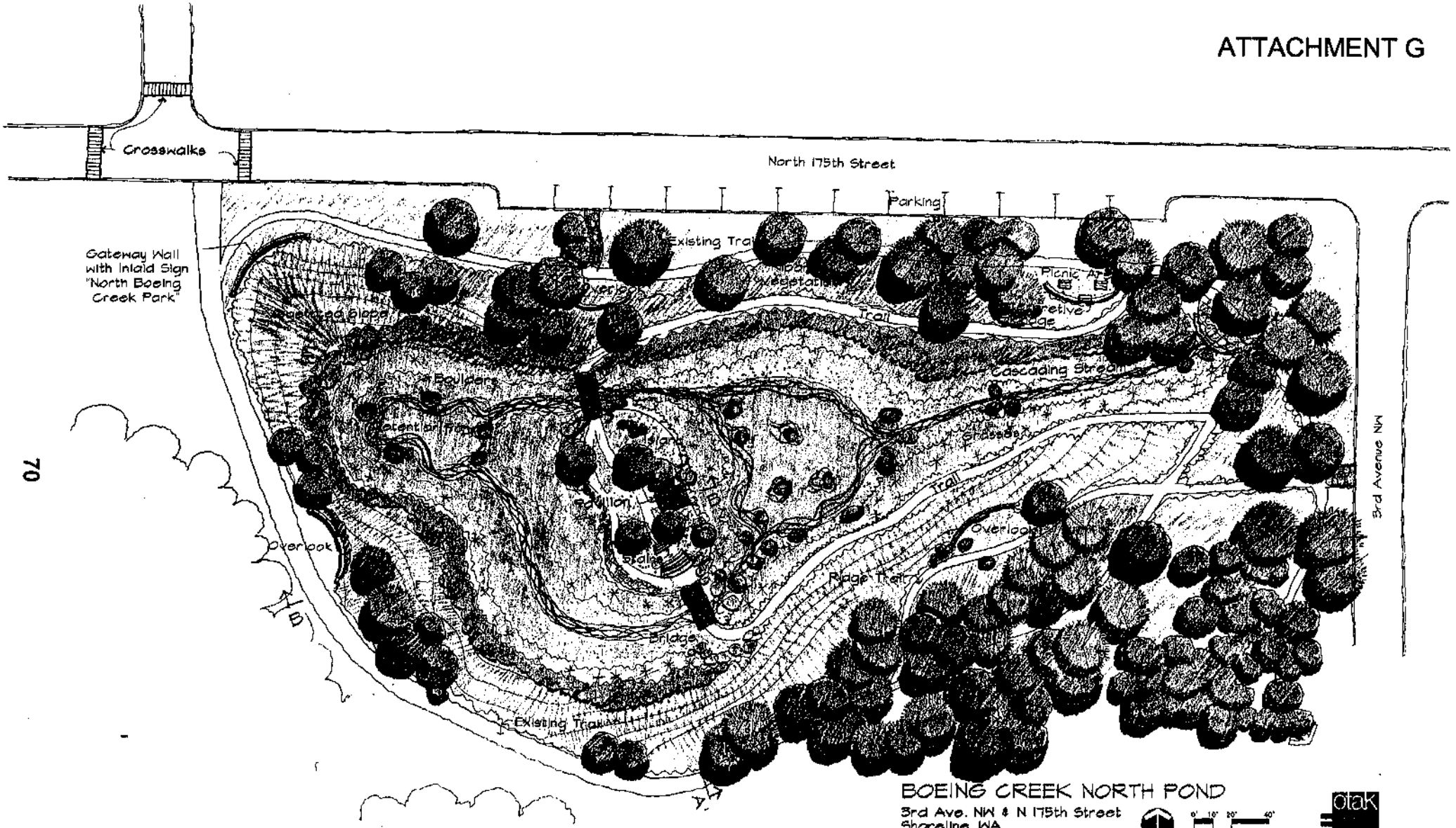
SHORELINE

50 0 50 100 Feet

otak

ATTACHMENT F

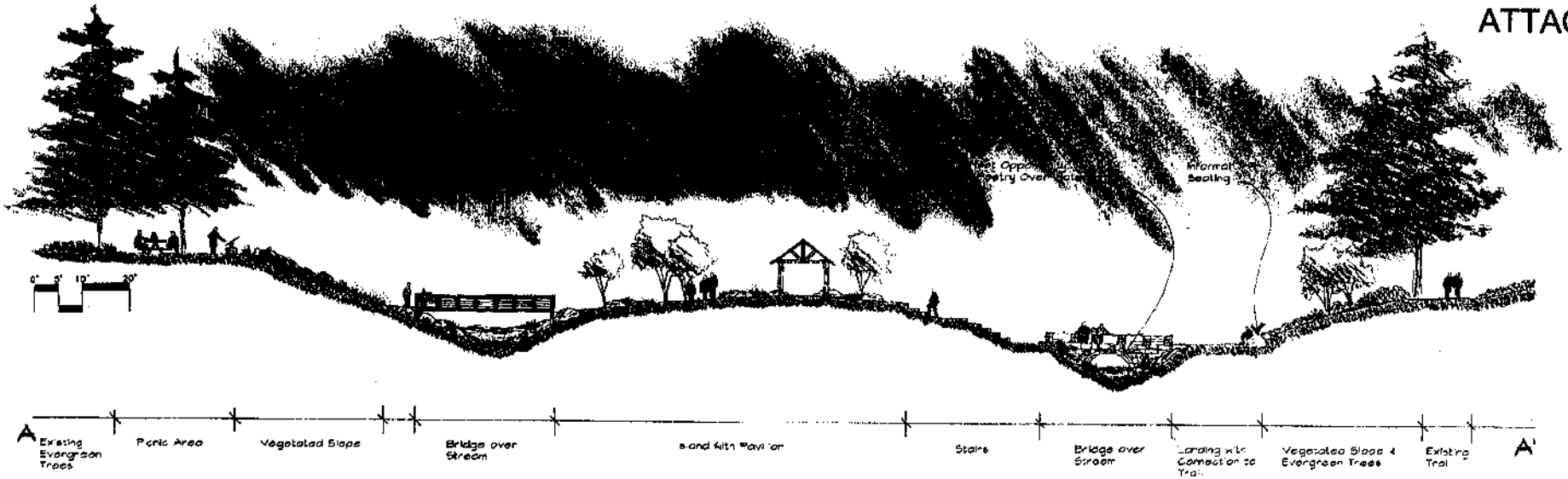
ATTACHMENT G



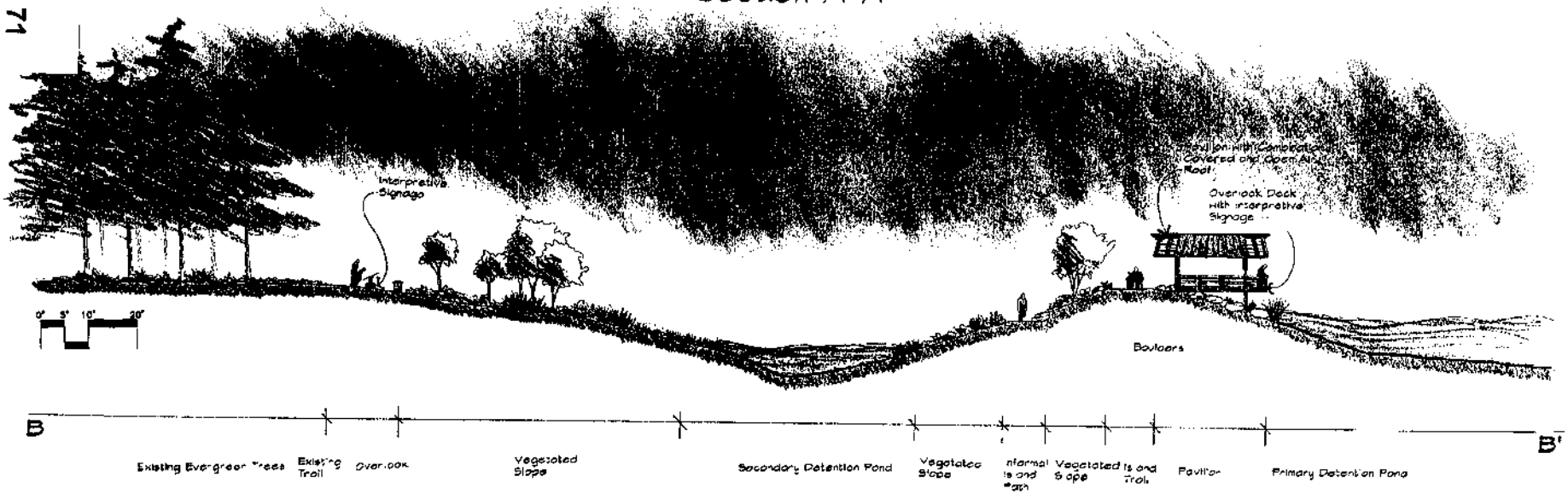
BOEING CREEK NORTH POND

3rd Ave. NW & N 175th Street
Shoreline, WA
Date: March 12, 2001

ATTACHMENT H



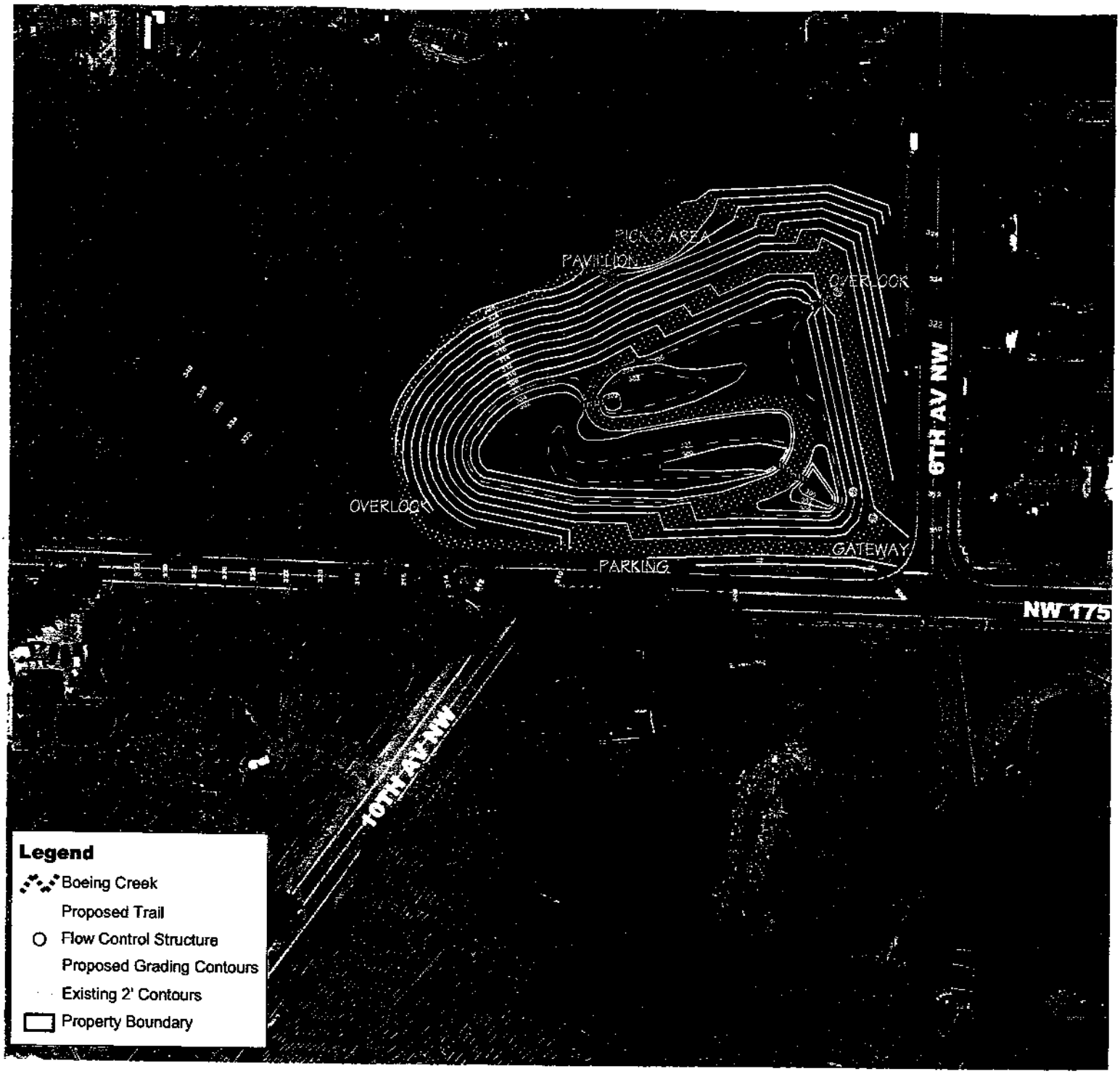
Section A-A'



Section B-B'

BOEING CREEK NORTH POND

3rd Ave. NW & N 175th Street
Shoreline, WA
Date: March 12, 2001



OPTION B - Construct New Boeing Creek Open Space Stormwater Detention Pond

Detention Mitigation

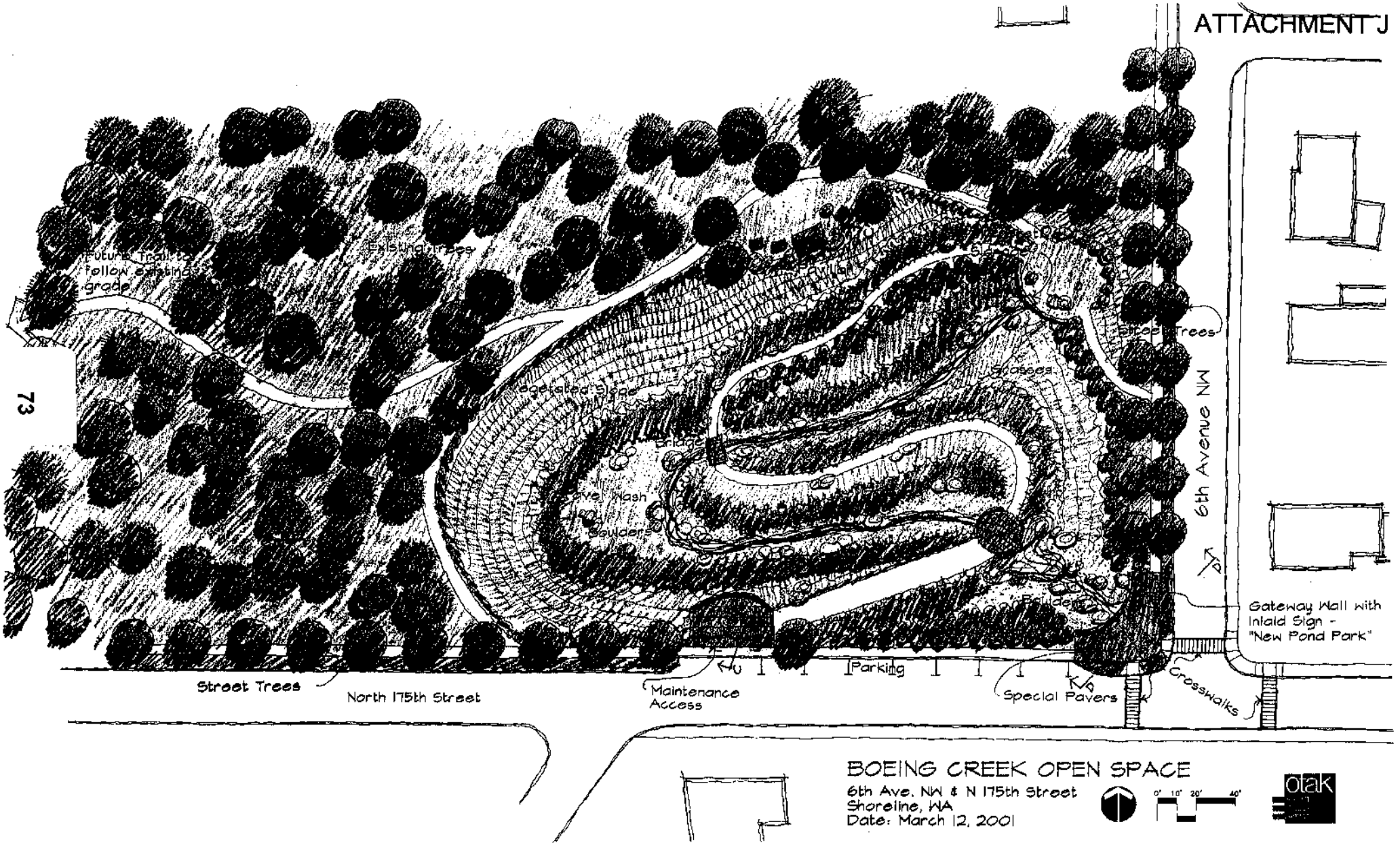
3rd Avenue Drainage Improvements

SHORELINE

50 0 50 100 Feet

ATTACHMENT I

ATTACHMENT J



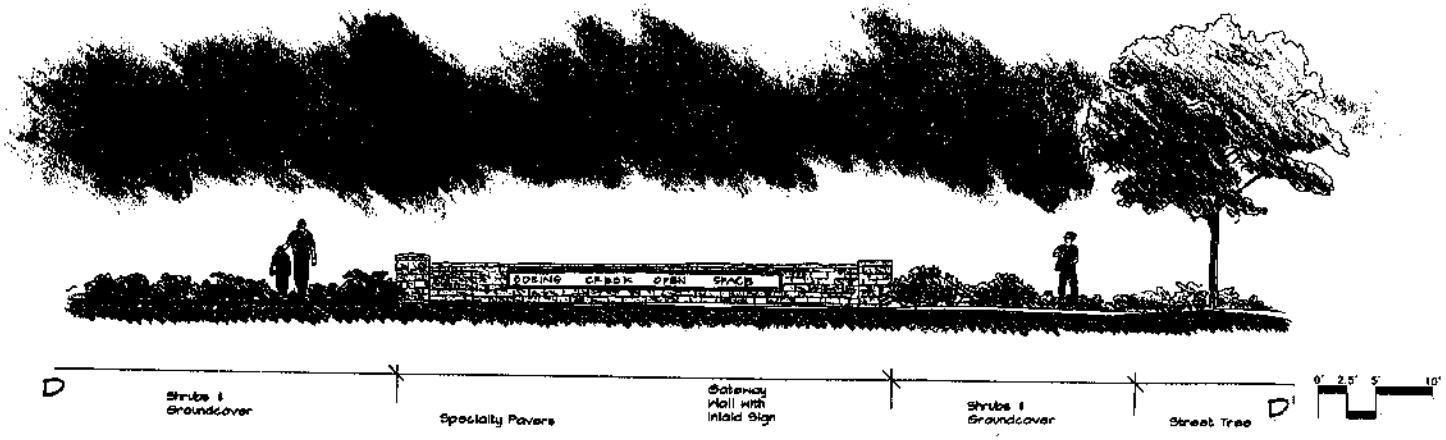
BOEING CREEK OPEN SPACE

6th Ave. NW & N 175th Street
Shoreline, WA
Date: March 12, 2001

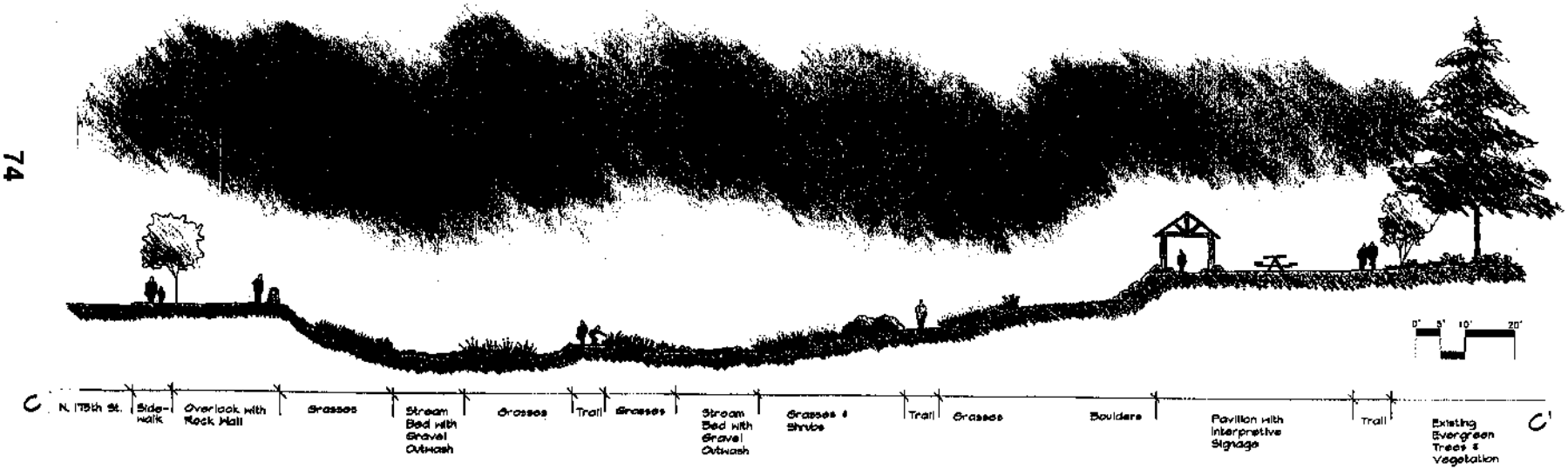
0' 10' 20' 40'

otak

ATTACHMENT K



Section D-D'



Section C-C'

BOEING CREEK OPEN SPACE
6th Ave. NW & N 175th Street
Shoreline, WA
Date: March 12, 2001

otak