

**CITY COUNCIL AGENDA ITEM**  
CITY OF SHORELINE, WASHINGTON

<p><b>AGENDA TITLE:</b> Continued Public Hearing on Shoreline City Hall Location <b>DEPARTMENT:</b> City Manager's Office <b>PRESENTED BY:</b> Steven C. Burkett, City Manager</p>
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**PROBLEM/ISSUE STATEMENT:**

In prior action the City Council has continued the public hearing on the suitability of the Echo Lake site for the new City Hall. The City is in the 90 day feasibility contingency period and is conducting the normal due diligence required in order to make a final determination as to whether or not to proceed with this site. At the January 24 meeting the City Council requested that staff respond to the following questions from Council members.

**Council Questions:**

Q - 1. Please provide a copy of all appraisals mentioned in public testimony. Does the City have a requirement that limits acquisition to no more than 10% over appraised value?

A – Copies of the City's appraisal completed by the Appraisal Group of the Northwest and the appraisal completed by the property owner are now available in the City Council office. In summary, the City's appraisal valued the property as vacant at \$6,970,000 while the owner's appraisal established a value of \$8,840,000. While both appraisals set the value of the commercial property along Aurora at \$30.00/sq. ft. the major difference in the appraisals is due to different assumptions of density on the R-48 zone properties. The owner's appraisal assumed the maximum density of 48 units per acre as allowed under the zoning code for a total of 297 potential developable units while the City's appraisal assumed a potential density of 218 units. Utilizing underground parking and maximum heights, the higher densities are achievable and result in a value closer to that of the owner's appraisal. The owner's appraisal values the property at \$23.60/sq. ft. and the final purchase price by the City was \$23.00/sq. ft. However, in lieu of donating the park property to the City, the developer has agreed to pay for the City's first \$1.2 million dollars of common area development costs (an amount closely equivalent to the value of the park property). When this amount is deducted from the City's purchase price the net square footage cost is \$17.12/sq. ft. As previously indicated these values are very favorable to what we see for other property purchases along Aurora in Shoreline. The City of Shoreline does not have a set restriction on purchasing property above the City's appraised value.

Q - 2. It is my understanding that the residents of Echo Lake will be reimbursed/receive money if they locate a site to move the trailers, however if they cannot, they will forfeit the money and not receive any transition financial assistance. Is this true?

A – Yes, as indicated in the attached memo from George Smith, State financial assistance is predicated upon the relocation of the trailer or mobile home. However, the property owner has also established a pool of assistance money of \$175,000 which will provide assistance of up to \$3500 per mobile home which is more flexible and can be used for other relocation needs. City staff is arranging for a meeting between the mobile home owners and the State relocation assistance staff to provide forms and instructions for applying for State assistance.

Q – 3. I would like the real financials with the discount rate and would like more detail in a financial cross reference.

A – Please see the attached material from the Finance Director.

Q – 4. What selection criteria did we use and was there a public process? Which sites were considered and how did they match up with the criteria?

A – Site selection criteria were reviewed and approved by the City Council in a public meeting on October 21, 2002. A copy of the staff memorandum from that meeting and an abstract from the Council minutes is attached. The actual application of the criteria to various sites was reviewed in a number of Executive Sessions with the Council.

Q – 5. Is there a finite list of City Halls built in the last 5 years within the three counties mentioned and did they include other building departments like police stations as well?

A – Please see the attached list of City Halls.

Q – 6. How much buffer is in this plan and will we be allowed to use the buffer? How much is actual park site in square footage separate from the buffer?

A – Current City regulations require a 100 foot buffer from the lake. The park property is estimated at 53,650 sq. ft. (1.23 acres) and it is intended that is in addition to the 100 ft. buffer requirement. However, it is important to note these are estimates and the Purchase and Sale Agreement specifies that the actual dimensions, square footages, pad sizes, and exact locations will be dependent on surveys to be completed during the 90 day feasibility period. The new draft critical areas ordinance recommends an increase in the buffer from 100 ft to 115 ft and the actual application to any site would depend upon the time of vesting of the application versus the time of the implementation of the new regulation. The owner's application for Comprehensive Plan change and rezone does contain an inconsistency in that in one place the buffer is submitted as 115 feet while in another it is mentioned at 100 feet. This will have to be resolved during the application process. As previously mentioned, certain low impact recreational uses that do not have impervious surface are allowed in buffer zones.

Q – 7. What soils tests have been done and what were the results. What about the underground streams and how are they classified?

A – A geotechnical review of the site was conducted by Pac-Rim Geotechnical, Inc. They concluded that the soils on site are suitable for normal construction techniques and footings. A copy of that report is attached. The City's stream and wetland inventory identifies a piped water course (EL2) through the site. It is a drainage pipe which begins at the Park and Ride lot on the southwest corner of 192<sup>nd</sup> and Aurora and then along Aurora

and into Echo Lake. This storm drainage pipe is not classified as a stream nor is there any historical evidence that it ever was a stream.

Q – 8. On the historical home, can that element be incorporated into the site? And, what documents are available regarding this home? We would like more information about the area.

A – Soon after incorporation the City contracted with King County for a survey of historical sites within Shoreline. The survey identified some 200 sites of interest, but only 2 or 3 could potentially qualify for any state or local historical registry. The site at Echo Lake was not among those that were noted for qualification. A copy of the inventory form is attached. While it would not appear practical to preserve the house noted on the Echo Lake site, some historical signage and interpretation of the site could potentially be incorporated into the park property. Such signage could include pictures and explanatory text of the site as an early resort and noting the adjacent Interurban Trolley line. Vicki Styles, the museum director, has been aware of this project and the applicant and City staff will work closely with the museum on any potential interpretation.

### RECOMMENDATION

As this is a continuation of the hearing from January 24 staff recommends that any new speakers be allowed to provide testimony to the Council and that the hearing be closed.

Approved By:            City Manager  City Attorney 

Attachments:

Memo from George Smith  
Financial detail from Finance Director  
Staff memo from 10/21/02 and minutes  
List of City Halls built in the last 5 years  
Pac Rim Geotechnical, Inc soils report  
King County Inventory form

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**Robert Olander**

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**From:** George Smith  
**Sent:** Wednesday, January 26, 2005 2:05 PM  
**To:** Robert Olander  
**Cc:** Rob Beem  
**Subject:** Mobile Home Relocation Assistance Question

Bob,

Here is the information you requested.

#### Councilmember Question

1. It is my understanding that the residents at Echo Lake will be reimbursed /receive money if they locate a site to move their trailers, however if they cannot, they will forfeit the money and not receive any transition financial assistance. Is this True?

#### Response from Human Services Office

The answer is yes with the following qualifiers.

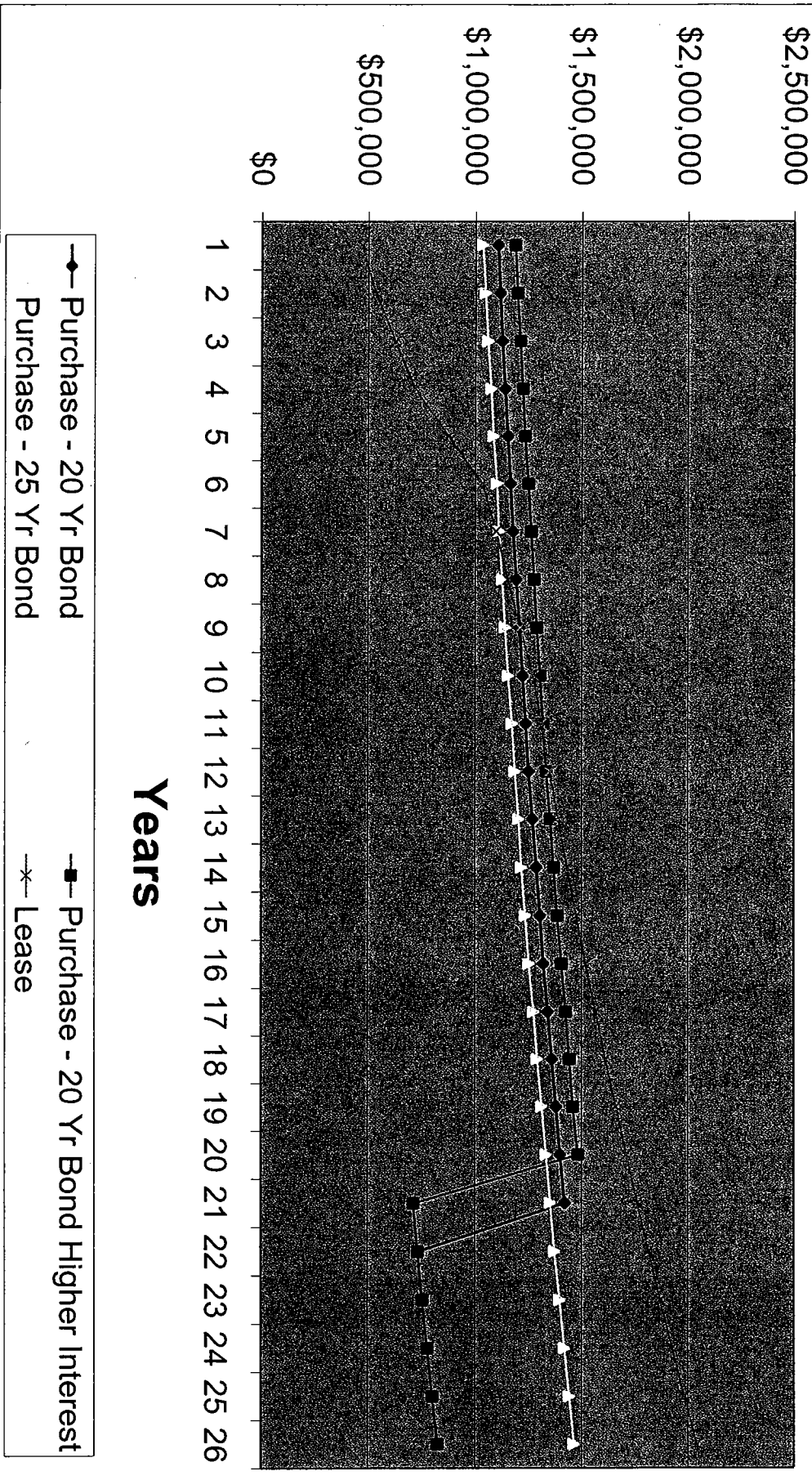
1. They must be income eligible - incomes cannot exceed 80% of median. Using HUD guidelines some examples would be: single person \$40,250; and family of three, \$51,750. However, the Department has discretion and can exceed these limits if there are other economic circumstances that need to be taken into consideration. According to the program officer, no one has ever been denied based on income.
2. They must own the mobile home and it must be capable of being moved.
3. They must make application and have it approved. The CTED program officer, Donna Regan, reports extensive contact with Harley Oneill, including sending him application packets, but few owners have responded. Apparently it is not uncommon for people to remain in denial and not act until the last minute.
4. Payment is subject to availability of funds and is on a first come first served basis. Right now there is \$600,000 in the fund. The relocation fund is self-funded through fees on the sale of mobile homes so the amount in the fund varies weekly.
5. Owners must complete the move and then submit bills for reimbursement.
6. In most cases, payment levels are not enough to cover all the costs of relocation. The homeowner must have resources to cover what the state allotment will not cover. Current limits are set in statute and cannot be changed. The Department is attempting to have this changed so they have the flexibility to change the amounts. Current limits are: \$3,500 for a single-wide and \$7,000 for a double-wide. Destination costs include such things as electrical and plumbing connections and other site preparation costs.
7. Tenants living in motor homes, campers and fixed structures (there are about 19 apartments on site) will not eligible for relocation assistance.

If you have other questions, let me know.

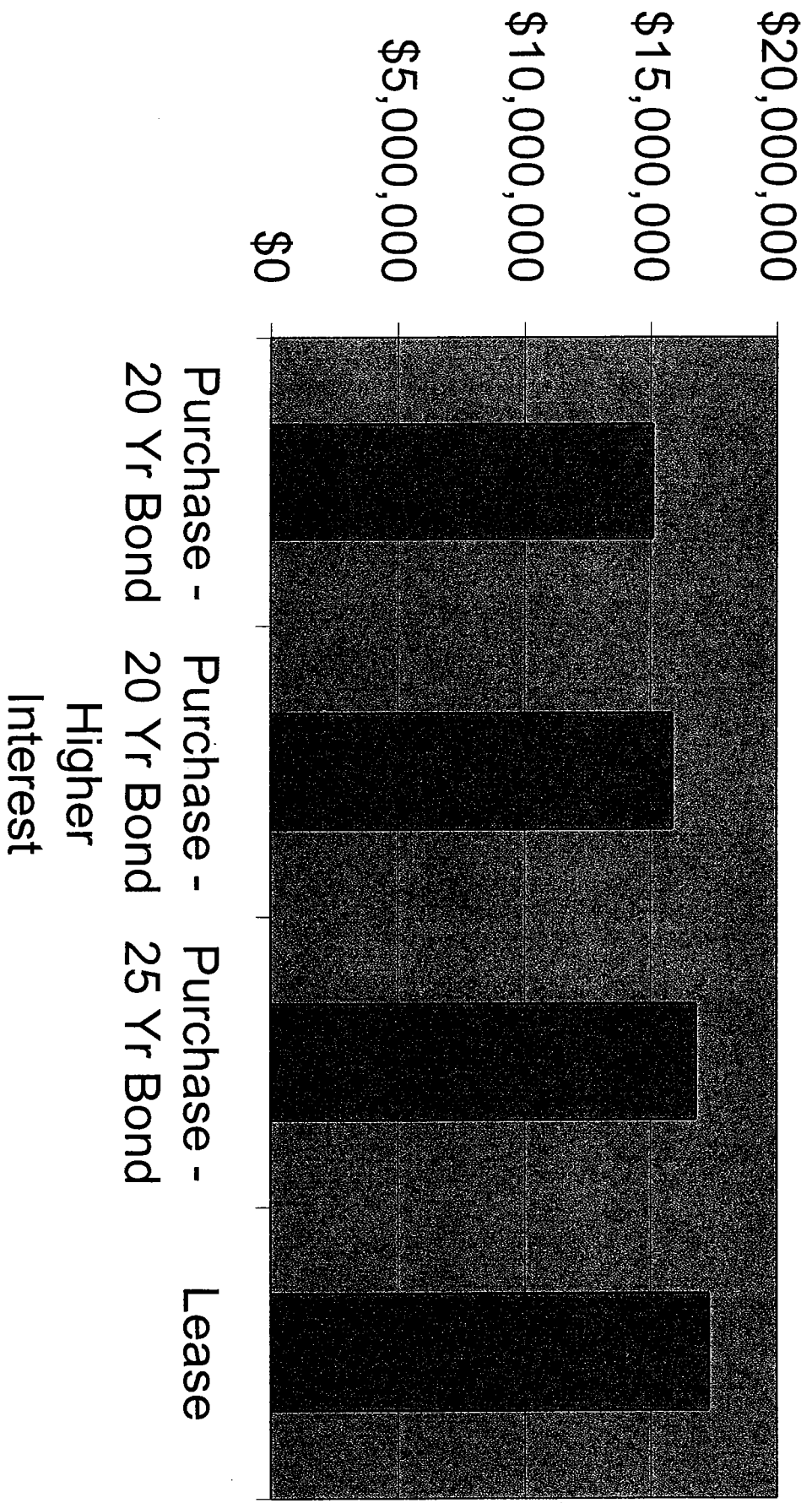
George Smith  
 Human Services Planner  
 City of Shoreline  
 (206) 546-5569

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# City Hall Scenarios Annual Cash Flow



# Net Present Value Comparison





	NPV 5.00%	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26
<b>NEW CITY HALL</b>																											
<b>OPERATING COSTS</b>																											
Bc Ft Operative Costs (P-V Mngmt from Hassegrus)		7.43	7.65	7.88	8.12	8.36	8.61	8.87	9.14	9.41	9.69	9.99	10.28	10.59	10.91	11.24	11.58	11.92	12.26	12.65	13.03	13.42	13.82	14.24	14.66	15.10	15.56
Professional Inflation		3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
So Ft		50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Predicted Operating Costs	\$17,747,403	393,780	402,694	417,732	433,305	449,214	465,511	482,206	499,312	516,841	534,807	553,211	572,051	591,326	611,045	631,208	651,815	672,865	694,358	716,294	738,672	761,493	784,757	808,464	832,614	857,209	882,249
<b>LEASED SPACE</b>																											
Original City Hqs Space		53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000
Leased Space																											
Office Sublease Rate		18.27	19.13	19.70	20.29	20.90	21.53	22.17	22.84	23.52	24.23	24.96	25.71	26.46	27.27	28.09	28.93	29.80	30.68	31.61	32.56	33.54	34.55	35.58	36.65	37.75	38.88
City % of Market	80%	10.71	11.21	11.73	12.26	12.81	13.37	13.96	14.56	15.17	15.81	16.46	17.13	17.81	18.50	19.20	19.92	20.66	21.42	22.19	22.98	23.79	24.61	25.45	26.31	27.18	28.08
Lease Revenue	\$0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>DEBT SERVICE</b>																											
Interest Rate (12/14/04 Bond Run)		2.00%	2.25%	2.51%	2.75%	2.95%	3.05%	3.24%	3.41%	3.55%	3.65%	3.75%	3.83%	3.91%	3.98%	4.05%	4.12%	4.18%	4.25%	4.32%	4.38%	4.45%	4.52%	4.59%	4.66%	4.73%	
Interest Expense		185,831	360,689	532,814	703,548	873,350	1,042,548	1,211,545	1,380,747	1,550,466	1,720,119	1,889,219	2,057,279	2,224,715	2,391,036	2,556,754	2,721,379	2,885,521	3,048,689	3,211,393	3,373,143	3,533,450	3,692,824	3,850,765	4,007,772	4,163,345	4,318,084
Principal Payment		525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000	525,000
Total Debt Service	\$8,098,376	710,831	710,689	710,814	708,548	708,350	708,888	707,145	705,347	703,566	702,219	701,156	700,156	699,156	698,156	697,156	696,156	695,156	694,156	693,156	692,156	691,156	690,156	689,156	688,156	687,156	686,156
<b>DOWN PAYMENT</b>																											
BUDGETED RESIDUAL VALUE (Assume 2% annual appreciation)		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Cap Out		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>SUMMARY</b>																											
Operating Costs	\$17,747,403	\$393,780	\$402,694	\$417,732	\$433,305	\$449,214	\$465,511	\$482,206	\$499,312	\$516,841	\$534,807	\$553,211	\$572,051	\$591,326	\$611,045	\$631,208	\$651,815	\$672,865	\$694,358	\$716,294	\$738,672	\$761,493	\$784,757	\$808,464	\$832,614	\$857,209	
Lease Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Service	\$8,098,376	\$710,831	\$710,689	\$710,814	\$708,548	\$708,350	\$708,888	\$707,145	\$705,347	\$703,566	\$702,219	\$701,156	\$700,156	\$699,156	\$698,156	\$697,156	\$696,156	\$695,156	\$694,156	\$693,156	\$692,156	\$691,156	\$690,156	\$689,156	\$688,156	\$687,156	\$686,156
Down Payment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building Equity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Land Equity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>TOTAL</b>	\$15,000,027	\$1,104,621	\$1,116,253	\$1,125,586	\$1,133,853	\$1,142,564	\$1,151,659	\$1,161,177	\$1,171,251	\$1,181,859	\$1,192,959	\$1,204,606	\$1,216,844	\$1,229,623	\$1,242,999	\$1,256,931	\$1,271,474	\$1,286,680	\$1,302,500	\$1,318,984	\$1,336,182	\$1,354,044	\$1,372,619	\$1,391,856	\$1,411,714	\$1,432,252	\$1,453,530

Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26
<b>NEW CITY HALL</b>																										
<b>DEBT SERVICE</b>																										
S.F. Operating Costs (Pvt Mgmt from Hesseger)	7.43	7.55	7.68	8.12	8.35	8.61	8.87	9.14	9.41	9.69	9.98	10.28	10.58	10.91	11.24	11.58	11.92	12.26	12.60	13.03	13.42	13.82	14.24	14.68	15.10	15.56
S.F. Operational Inflation	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000
Projected Operating Costs	393,950	405,604	417,772	430,305	443,214	456,511	470,206	484,312	498,841	513,897	529,221	545,097	561,450	578,284	595,643	613,512	631,917	650,875	670,401	690,513	711,229	732,565	754,542	777,179	800,484	824,524
<b>LEASED SPACE</b>																										
Ocegraph City Hall Space	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000	53,000
City % of Market	16.71	15.13	13.70	12.29	10.90	9.53	8.17	6.92	5.76	4.68	3.68	2.74	1.86	1.03	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lease Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>DEBT SERVICE</b>																										
Interest Payment	1.1%	2.5%	4.25%	6.33%	8.74%	11.47%	14.41%	17.54%	20.94%	24.68%	28.74%	33.10%	37.74%	42.64%	47.77%	53.11%	58.72%	64.58%	70.67%	76.97%	83.46%	90.13%	96.96%	103.94%	111.05%	118.28%
Principal Payment	565,338	421,152	280,000	140,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Debt Service	\$9,863,230	\$791,338	\$792,772	\$790,877	\$789,257	\$787,825	\$786,481	\$785,221	\$784,033	\$782,903	\$781,819	\$780,777	\$779,775	\$778,803	\$777,859	\$776,943	\$776,053	\$775,187	\$774,344	\$773,522	\$772,720	\$771,937	\$771,173	\$770,428	\$769,702	\$769,000
<b>DOWN PAYMENT</b>	\$8,823,810	10,000,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>BUDGETED RESIDUAL VALUE (Assume 2% Annual Depreciation)</b>																										
Cap Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land	(\$10,255,480)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SALVAGE																										
Operating Costs	\$7,747,403	\$380,780	\$405,604	\$417,772	\$430,305	\$443,214	\$456,511	\$470,206	\$484,312	\$498,841	\$513,897	\$529,221	\$545,097	\$561,450	\$578,284	\$595,643	\$613,512	\$631,917	\$650,875	\$670,401	\$690,513	\$711,229	\$732,565	\$754,542	\$777,179	\$800,484
Lease Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Debt Service	\$9,863,230	\$791,338	\$792,772	\$790,877	\$789,257	\$787,825	\$786,481	\$785,221	\$784,033	\$782,903	\$781,819	\$780,777	\$779,775	\$778,803	\$777,859	\$776,943	\$776,053	\$775,187	\$774,344	\$773,522	\$772,720	\$771,937	\$771,173	\$770,428	\$769,702	\$769,000
Down Payment	(\$10,255,480)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Equity	\$15,848,434	\$1,185,728	\$1,195,860	\$1,210,766	\$1,223,077	\$1,234,091	\$1,243,031	\$1,250,955	\$1,257,944	\$1,264,978	\$1,271,038	\$1,276,114	\$1,280,206	\$1,283,314	\$1,285,441	\$1,286,584	\$1,286,743	\$1,285,917	\$1,284,105	\$1,281,307	\$1,277,532	\$1,272,789	\$1,267,087	\$1,260,438	\$1,252,852	\$1,244,330
TOTAL																										

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26		
<b>NEW CITY HALL</b>																												
<b>OPERATING COSTS</b>																												
Sq Ft Operational Costs (Pvt Mngmt from Haslinger)	7.43	7.65	7.86	8.12	8.36	8.61	8.87	9.14	9.41	9.68	9.98	10.28	10.58	10.91	11.24	11.58	11.92	12.28	12.65	13.03	13.43	13.83	14.24	14.66	15.10	15.56	16.04	
Operational Inflation	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	
Projected Operating Costs	\$7,515,513	\$8,064,493	\$8,624,414	\$9,194,314	\$9,774,214	\$10,364,114	\$10,964,014	\$11,573,914	\$12,193,814	\$12,833,714	\$13,493,614	\$14,173,514	\$14,873,414	\$15,593,314	\$16,333,214	\$17,093,114	\$17,873,014	\$18,672,914	\$19,492,814	\$20,332,714	\$21,192,614	\$22,072,514	\$22,972,414	\$23,892,314	\$24,832,214	\$25,792,114	\$26,772,014	
<b>LEASED SPACE</b>																												
Lease Space	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000	53000
Office Sublease Rate	18.57	19.13	19.70	20.29	20.90	21.53	22.17	22.84	23.52	24.23	24.96	25.71	26.48	27.27	28.09	28.93	29.80	30.69	31.61	32.54	33.51	34.53	35.58	36.65	37.75	38.88	40.04	
City % of Incent	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
Lease Revenue	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30
<b>DEBT SERVICE</b>																												
Interest Rate (12/16/04 Bond Run)	2.09%	2.25%	2.51%	2.52%	2.78%	3.05%	3.24%	3.41%	3.55%	3.65%	3.75%	3.83%	3.98%	4.08%	4.05%	4.17%	4.20%	4.28%	4.33%	4.38%	4.39%	4.45%	4.54%	4.67%	4.84%	5.11%	5.47%	
Interest Expense	189,738	390,279	584,654	777,899	957,888	1,124,811	1,278,566	1,418,141	1,543,554	1,654,811	1,752,011	1,835,161	1,903,261	1,956,311	1,994,311	2,027,261	2,055,061	2,077,711	2,095,211	2,107,561	2,114,761	2,116,811	2,113,711	2,105,461	2,092,011	2,073,461	2,049,811	2,021,161
Interest Expense	189,738	390,279	584,654	777,899	957,888	1,124,811	1,278,566	1,418,141	1,543,554	1,654,811	1,752,011	1,835,161	1,903,261	1,956,311	1,994,311	2,027,261	2,055,061	2,077,711	2,095,211	2,107,561	2,114,761	2,116,811	2,113,711	2,105,461	2,092,011	2,073,461	2,049,811	2,021,161
Debt Service	483,932	500,000	516,667	533,833	551,500	569,667	588,333	607,500	627,167	647,333	668,000	689,167	710,833	733,000	755,667	778,833	802,500	826,667	851,333	876,500	902,167	928,333	955,000	982,167	1,009,833	1,038,000	1,066,667	1,095,833
Total Debt Service	\$483,932	\$500,000	\$516,667	\$533,833	\$551,500	\$569,667	\$588,333	\$607,500	\$627,167	\$647,333	\$668,000	\$689,167	\$710,833	\$733,000	\$755,667	\$778,833	\$802,500	\$826,667	\$851,333	\$876,500	\$902,167	\$928,333	\$955,000	\$982,167	\$1,009,833	\$1,038,000	\$1,066,667	\$1,095,833
<b>DOWN PAYMENT</b>																												
Blg Value	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810	\$9,235,810
Cap Out	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222
Land	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588
<b>SUMMARY</b>																												
Operating Costs	\$7,515,513	\$8,064,493	\$8,624,414	\$9,194,314	\$9,774,214	\$10,364,114	\$10,964,014	\$11,573,914	\$12,193,814	\$12,833,714	\$13,493,614	\$14,173,514	\$14,873,414	\$15,593,314	\$16,333,214	\$17,093,114	\$17,873,014	\$18,672,914	\$19,492,814	\$20,332,714	\$21,192,614	\$22,072,514	\$22,972,414	\$23,892,314	\$24,832,214	\$25,792,114	\$26,772,014	
Lease Revenue	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30
Debt Service	\$483,932	\$500,000	\$516,667	\$533,833	\$551,500	\$569,667	\$588,333	\$607,500	\$627,167	\$647,333	\$668,000	\$689,167	\$710,833	\$733,000	\$755,667	\$778,833	\$802,500	\$826,667	\$851,333	\$876,500	\$902,167	\$928,333	\$955,000	\$982,167	\$1,009,833	\$1,038,000	\$1,066,667	\$1,095,833
Down Payment	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222	\$8,437,222
Land Equity	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588	\$798,588
<b>TOTAL</b>	\$16,702,823	\$17,336,323	\$17,979,823	\$18,623,323	\$19,266,823	\$19,910,323	\$20,553,823	\$21,197,323	\$21,840,823	\$22,484,323	\$23,127,823	\$23,771,323	\$24,414,823	\$25,058,323	\$25,701,823	\$26,345,323	\$26,988,823	\$27,632,323	\$28,275,823	\$28,919,323	\$29,562,823	\$30,206,323	\$30,849,823	\$31,493,323	\$32,136,823	\$32,780,323	\$33,423,823	\$34,067,323

NPV	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20	Year 21	Year 22	Year 23	Year 24	Year 25	Year 26
5.00%	770,301	817,135	866,817	918,620	972,428	1,034,732	1,097,644	1,153,185	1,211,536	1,272,840	1,311,025	1,350,356	1,390,866	1,432,592	1,475,570	1,518,837	1,565,432	1,615,395	1,669,767	1,710,590	1,751,908	1,814,795	1,889,208	1,923,284	1,930,043	2,042,534
10,208,371																										
Operating Costs																										
Current Lease & Costs																										
Assume 3 Year Buy Down on \$10 Million (\$5M/Yr)																										
Balance at Interest Rate																										
Investment Interest Earned																										
Operating Costs																										
Foreign Interest Revenue																										
TOTAL																										
2005 Budget																										
Operating Supplies																										
Laundry services - Citywide Mats																										
Security Monitoring																										
Lease - SPC																										
Lease - Highland Plaza																										
Lease - Citywide Mats																										
Lease Contingency																										
Electricity - Highland Plaza																										
Gas - Highland Plaza																										
Water - Highland Plaza																										
Maintenance																										
Temp Help																										
Dry Facilities Staff																										
Sub-Total																										
Current Lease Space																										
Cost Per Square Foot																										
Inflationary Cost Increase																										
Cost Per Square Foot																										
Space Increase Factor																										
Required Square Feet																										
Annual Cost																										


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**Council Meeting Date:** October 21, 2002

**Agenda Item:** 5(d)

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**CITY COUNCIL AGENDA ITEM**  
CITY OF SHORELINE, WASHINGTON

<b>AGENDA TITLE:</b> City Hall Siting Criteria <b>DEPARTMENT:</b> City Manager's Office <b>PRESENTED BY:</b> Robert Olander, Deputy City Manager Eric Swansen, Senior Management Analyst 
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**PROBLEM/ISSUE STATEMENT:**

Staff would like to outline the siting process and present a draft site criteria leading to the construction of a new City Hall with Council.

The big picture problem we are solving here was well defined shortly after incorporation by the first City Council. The City has little control over the costs of leasing and maintaining office space for City Hall. In addition, the City's customer service locations have become de-centralized between two buildings, which creates a barrier to providing quality customer service. Furthermore, the City's image lacks a sense of community while it occupies leased office space in two adjacent buildings.

**FINANCIAL IMPACT:**

The financial impact of this project is not fully known at this time. Significant differences between sites, construction delivery methods, market conditions and the City's ability to afford a project are all factors that will determine the cost of this project. While the Capital Improvement Program (CIP) contains \$15.1 million for this project, as Council is aware the more work we do on this project the greater the certainty about costs will be. However, clearly, we have limited resources that we can devote to this project with our current revenue sources. Staff will not propose a City Hall project that we will not be able to afford in terms of both capital and operating expenses.

Funds to complete this process are budgeted in the revised 2002 CIP.

**RECOMMENDATION**

No action is required. Staff is seeking Council's consensus for proceeding with the site evaluation process and providing direction on the siting criteria.

Approved By: City Manager  City Attorney 

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## **INTRODUCTION**

Staff would like to outline the siting process, and draft site criteria for the construction of a new City Hall with Council.

## **BACKGROUND**

This item was last discussed with Council on August 19<sup>th</sup>, when staff presented a project plan and introduced Olympic Associates of Seattle as the project and construction management firm assisting with this project. The project plan outlined the need to develop a siting process and criteria.

Staff will be returning with an updated space needs analysis and very preliminary site drafts in the weeks ahead.

## **DISCUSSION**

Finding a suitable site for a City Hall can be one of the most difficult aspects of this project. The process for selecting a site must be open and fair, but at the same time not provide potential sellers or brokers any information greater than necessary to avoid cost escalations for preferred sites. The real estate market is always in a state of change, possibly adding or removing sites from further consideration based on owner preferences and development activity.

In order to have a fair and open process, staff is suggesting we look at sites commonly known as being available for acquisition. In addition, staff also suggests we ask property owners to submit suitable properties for review and analysis in addition to the commonly known sites. This process could take a month for submissions to be received, and another 2 weeks to review and analyze. However, it lowers the risk of having a new site being pitched to the project team at the last minute, delaying or derailing project resources.

Each site would be reviewed and analyzed using consistent criteria. The criteria would be broken down into two sequences, the basic fit and the remainder are qualitative measures that help compare those sites that meet the basic fit criteria.

The criteria will not be initially weighted. If we discover a number of sites that are very similarly valued, staff will consider returning to Council with a weighting exercise to help sort out more specific preferences in relation to the criteria.

Once the sites are reviewed and analyzed, those sites rated most suitable will be reviewed in greater detail. This additional work will place a footprint of the proposed City Hall on the site, determining building height, which is a significant factor in estimating costs. Taller buildings, most likely to be used on smaller sites where space is a premium, will require higher quality construction, increasing costs. These preliminary site plans will be shared with Council, for comment and later consideration.

The siting criterion is very simple. Staff is suggesting a two part criteria, with the first sort seeking sites that have a basic fit to our needs, the second being a more in-depth qualitative review.

Only sites that meet the first sort criterion will be reviewed with the second set of criterion. This will reduce the amount of staff and consultant time used to review sites that are not likely to have a very high probability of meeting our needs.

Staff is suggesting the following criteria be utilized:

Basic Fit - Location – Overall Centrality & “Civic Heart”

In general, Council has expressed interest in having a centrally located City Hall, which fosters convenient access from all areas of the City. This criteria would rate on a qualitative scale the centrality to the central business district and the potential to enhance Shoreline's “civic heart” or desire to establish a core downtown. The higher the score, the more suitable the site it.

Basic Fit – Location – Economic development catalyst potential

Council has also expressed an interest in getting this project to also be a catalyst for future economic development activities. Sites that lend themselves to being the beginning of future development, either coordinated or as a result of, the City Hall, will rate higher than others.

Basic Fit – Location – Transportation access

The City has an opportunity to use the City Hall project as a model for encouraging transportation accessibility. This includes both traditional (access to major arterials) and alternatives (location on a bus route, proximity to bicycle paths or designated routes, sidewalks that connect to major business areas). Sites with greater transportation accessibility will rate higher in relation to other sites with less accessibility.

Basic Fit – Location – Neighborhood / Adjacency to Services

The City wants to be a good neighbor when building a City Hall, so it makes sense to look for siting in locations where neighborhoods have quality development and generally support this type of project. This also includes proximity to services that City employees and visitors might easily access and use (i.e. espresso, sandwich shop, dry cleaners, etc.)

Basic Fit – Location – Citizenry access to city services

The City seeks to ensure that all citizens have easy access to City Hall. The building itself will conform to the state barrier free standards, but location is also an important part of this. Sites located closer to the population center of the City will rate higher, than those further from this center. This is different from overall centrality, as that measure is focused on a commercial, not population, center.

Basic Fit – Parcel size and shape relative to needs

The City Hall building will have a number of options when it comes to height, width and parking. In general, sites that provide for the basic footprint, with suitable ingress/egress will rate high. Those with even greater space will rate higher, while



those will less will rate lower. If possible, staff will be seeking to acquire as much property as our budget allows, to provide for future development on the site.

#### Basic Fit – Cost

The City Hall site must be within the City's budget overall. Cost will compare the options for building up (and have a more expensive construction type) with building out (and having to buy more land), when looking at the overall cost.

### Additional Criteria

#### Additional Criteria - Site Characteristics – Expansion Potential

As previously mentioned, staff would like to acquire as much property as the site acquisition budget allows, for future expansion. Discussions with other cities that have built City Hall buildings suggest that if they were to do it again, they would want to buy more land. While the City's operating budget will not likely support another building for quite some time, we need to keep all our options open. The more suitable a site is for future expansion, the higher the rating.

#### Additional Criteria – Site Characteristics – Quality of Site

Sites with higher quality amenities, while not critical, are considered as having a higher value than others. This includes features like condition of the site, views, topography, etc.

#### Additional Criteria – Site Characteristics – Traffic access and parking

City Hall, while not a large traffic generator, still needs to have adequate parking and traffic access to meet our community's needs.

#### Additional Criteria – Sustainability/Environmental – Site Impact

Sites where development could require environmental damage would not rate as high as those sites where there is no environmental damage (or perhaps even an environmental benefit). This could be in terms of impervious surfaces which create stormwater runoff to on-site treatment facilities, require the elimination of urban quality trees, or reduce beneficial native vegetation.

#### Additional Criteria – Sustainability/Environmental – Remediation required

Sites, which require additional environmental remediation, due to prior uses, will rate lower than those sites that require less remediation. These are often sites that have had vehicle or machinery repair functions, and have created a potential liability for the City to own the property.

#### Additional Criteria – Sustainability/Environmental – Stormwater Management

Sites that have little impact on the natural water flow rate higher than those with greater impact.

#### Additional Criteria – Sustainability/Environmental – Open Space

Sites which lend themselves to restoring or enhancing natural features will rate higher than those sites which do not.

Additional Criteria – Infrastructure – Street frontage

Sites with more street frontage that enhances the presence and access to the property and future development will rate higher than other sites.

Additional Criteria – Infrastructure – Traffic Mitigation

Sites which require significant off-site improvements to ensure traffic impacts are mitigated, such as traffic signals, calming devices, widening or turn lane construction, will rate lower than those site with less mitigation requirements.

Additional Criteria – Infrastructure – Communications system

The greater the access to a high quality communications system, the better the rating. Access to the County's I-Net, City owned fiber infrastructure and proximity to telephone switching stations will rate higher than sites without these features.

Additional Criteria – Infrastructure – Utilities

The less need for additional investment in utility infrastructure (water line size, sewer extensions, utility transformers, etc.) the higher the rating.

Additional Criteria – Real Estate – Available for acquisition

Sites which are generally available for acquisition are rated higher than those which involve costly and less timely exchanges or relocations. Sites with fewer barriers to acquisition will rate higher then other sites.

Additional Criteria – Real Estate – Condemnation required

Sites that are not available due to unwillingness of the seller will rate lower, than available sites. This will reduce the costly delays needed to use eminent domain proceedings.

Additional Criteria – Real Estate – Potential for partnerships/joint tenancy

In the past Council has expressed interest in sites that have greater potential for partnerships or joint tenancy will rate higher, than sites with little or no opportunity.

Additional Criteria – Real Estate – R/E transaction relationship

Sites that have more cooperative, committed and experienced property owners will result in a better working relationship. Such sites will rank higher than those with less willing owners.

**RECOMMENDATION**

No action is required. Staff is seeking Council's consensus for proceeding with the site evaluation process and providing direction on the siting criteria.

**ATTACHMENTS**

Attachment A – Siting Memo from Olympic Associates

October 10, 2002

**ATTENTION:** Shoreline City Management

**RE:** Site Selection Criteria  
Shoreline City Hall

**FROM:** Steven Paget  
Olympic Associates Company

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Olympic Associates Company has researched site selection criteria appropriate for use in property assessment for a civic project of the nature of the Shoreline City Hall. Our research included review of site selection criteria typically used on public projects and commercial administrative office buildings. We considered the criteria used previously by the Seneca Group in their assessment of potential sites for the City Hall as well as that typically used by the real estate industry. Criteria suggested by City staff and consideration of Shoreline's unique qualities and specific needs also went into the development of a set of proposed selection criteria.

The proposed site selection criteria are organized into the five categories of Location, Site Characteristics, Sustainability/Environmental, Infrastructure and Real Estate. Within each of these categories, we have incorporated twenty-two specific factors for consideration. These factors capture the essential aspects of the five categories relevant to the City Hall site selection. Each criterion has the potential for differential weighting to reflect the relative value the City places on each aspect.

Olympic has prepared a Site Selection Scoring Matrix for use by the Project Team. The matrix is organized into the five categories noted above and the associated criteria. Each criterion can be weighted between 1 and 10, with 10 carrying the greatest weight or value. The criteria have a scoring between 1 and 5, with 5 being the highest score. The criteria scores are then factored against the weighted values to provide a weighted score. We have prepared a set of qualitative notes for each aspect clarifying how to view and score that criterion.

To simplify the selection process, we recommend that those criteria carrying the greatest weight, e.g. location, cost and suitable parcel size and shape, be used as a first-pass filter for narrowing down the total number of sites evaluated. Those sites that satisfy the essential criteria can then be further evaluated and compared using the balance of the selection criteria.

Olympic Associates Company recommends adoption of the Site Selection Criteria by the Shoreline City Council and use of the Scoring Matrix by Shoreline City Management in the evaluation of potential sites for City Hall. Olympic is available to make any modifications to the criteria and matrix to better suit the needs of the City.

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# Shoreline City Hall Site Selection Criteria

SELECTION CRITERIA	QUAL NOTES
<b>LOCATION</b> Overall centrality & "civic heart" Economic development catalyst potential Transportation access Neighborhood/Adjacency to services Citizenry access to City services	1
	2
	3
	4
	5
<b>SITE CHARACTERISTICS</b> Parcel size & shape relative to needs Expansion potential Quality of site Traffic access and parking	6
	7
	8
	9
<b>SUSTAINABILITY/ENVIRONMENTAL</b> Site Impact Remediation required Stormwater management Open space pres/restoration	10
	11
	12
	13
<b>INFRASTRUCTURE</b> Street frontage Traffic mitigation Communications system Utilities	14
	15
	16
	17
	18
<b>REAL ESTATE</b> Available for acquisition Condemnation required Cost Potential for partnership/joint tenancy R/E transaction relationship	19
	20
	21
	22
	22

**Qualitative Notes:**

1. The overall centrality to Shoreline's central business district, arterials, city gateway, etc. and potential to enhance Shoreline's "civic heart", the higher the rating.
2. The potential for catalyzing economic development and acting as an anchor for attracting future development, the higher the rating.
3. The more convenient the access to public transportation, bike paths, main arterials and I-5, the higher the rating.

# Shoreline City Hall Site Selection Criteria

4. The nature and quality of the neighborhood and the ease of access to amenities and services for City staff, the higher the rating.
5. The ease of access by citizens to the property, the higher the rating.
6. The more suitable the property is for meeting the parcel size, shape and layout requirements of the project, the higher the rating.
7. The more suitable the property is for accommodating future expansion, the higher the rating.
8. The higher the overall quality of the site relative to condition, environment, neighborhood, views, amenities, etc., the higher the rating.
9. The more suitable the property is for meeting the parking requirements and traffic access, the higher the rating.
10. The higher the potential for limiting site environmental damage and limiting the development footprint, the higher the score.
11. The lower the potential for remediation of environmental pollution/contaminants, the higher the rating.
12. The greater the potential for limiting disruption of natural water flows and for on-site, low impact stormwater management, the higher the rating.
13. The greater the potential for preservation and/or restoration of natural features and environmental qualities, the higher the rating.
14. The more that the street frontage enhances the presence and access to the property and future developments, the higher the rating.
15. The less traffic mitigation requirements required to meet the anticipated trip generation, the higher the score.
16. The greater the access to and the higher the quality of the communications infrastructure, the higher the score.
17. The less improvements required to the utilities infrastructure to meet the development needs, the higher the score.
18. The lower the barriers to acquisition, the higher the score.
19. The less likely that condemnation would be required to acquire the property, the higher the score.
20. The lower the cost, the higher the score.
21. The greater the potential for a development partnership and/or joint tenancy that would enhance the project, the higher the score.
22. The more cooperative, committed and experienced the property owner, the higher the score.

of the plan is to save children who are kidnapped by early announcement of a missing child through various means. She emphasized that the program has already proved itself.

Responding to Councilmember Ransom, Chief Pentony said this program will be used for juveniles up to the age of 18. The requirement of waiting 24 hours to file a missing person's report applies only to adults.

(d) City Hall Site Selection Criteria

After explaining the reasons why we are looking for a "home" for the city organization, Eric Swansen, Senior Management Analyst, reviewed the selection criteria for the siting of city hall as listed on pages 22 – 24 of the Council packet. He emphasized that staff will "cast a wide net" and then develop a negotiation process for the sites that come to the top of the list after applying the two-step criteria. Only sites that meet the first sort criteria will be reviewed with the second set of criteria. He said that both the size of the site and the type of building it could contain are factors in the cost.

Mayor Jepsen asked for public comment.

(a) LaNita Wacker, Shoreline, said there is a concern that a city hall would be placed on commercial property that would then be taken off the tax rolls. She suggested a mixed use concept with retail, city hall, and possibly residential all in the same building. She also suggested Councilmembers view the Edmonds City Hall and think about how the design might transfer to Shoreline. She concluded that a city hall with a "village green" would be inviting.

Councilmember Montgomery supported the order of the criteria and liked the ideas of mixed use and a village green.

Councilmember Chang agreed with Ms. Wacker that the city hall should not use prime commercial property that would otherwise generate revenue for the City.

Mayor Jepsen suggested deletion of the "citizenry access to city services" because he did not think population density is a critical factor in locating a city hall. He also felt that "parcel size and shape relative to needs" should be deleted, since the cost criterion covers the compromise that will come into play in making the decision. He also suggested rewording of the "sustainability/environmental—remediation required" criterion to highlight positive actions that could be taken.

Councilmember Hansen was looking forward to seeing a list of the sites being considered.

Councilmember Ransom wanted to include consideration of the Cromwell Park site since it is not a Forward Thrust Park with Forward Thrust funding limitations on use. He said the park should be free and clear for anything the City wants to do with it.

Mr. Swansen said a number of sites will be considered, and nothing in the criteria excludes that site.

Councilmember Ransom concluded the discussion by concurring with Mayor Jepsen that population density should not be considered.

6. ACTION ITEMS

Mayor Jepsen received Council consensus to consider Item 6(b) before Item 6(a).

(b) Naming of the Skateboard Park

**Councilmember Ransom moved to consider naming the skateboard park after former Mayor Connie King by sending this suggestion to the Parks, Recreation and Cultural Services Advisory Committee for its review according to the Parks Naming Policy. Councilmember Hansen seconded the motion.**

Councilmember Ransom commented on former Mayor King's contribution to providing the impetus for building a skate park and her perseverance in advocating for it.

**A vote was taken on the motion, which carried unanimously.**

- (a) Motion to approve Critical Areas Special Use Permit to allow construction of an assisted care residence to be completed at 14900 1<sup>st</sup> Avenue NE by Aegis of Shoreline LLC and to adopt the Findings, conclusions and Recommendations of the Hearing Examiner dated August 26, 2002

**As he did last week when this item was first considered, Deputy Mayor Grossman stepped down from the Council table and left the meeting at 8:42 p.m.**

The City Clerk said the following motion, postponed from the meeting of October 14, 2002, was on the table: "Councilmember Gustafson moved to approve the Critical Areas Special Use Permit to allow construction of an assisted care residence to be completed at 14900 1<sup>st</sup> Avenue NE by Aegis of Shoreline LLC and to adopt the Findings, Conclusions, and Recommendation of the Hearing Examiner dated August 26, 2002, with the two changes suggested by staff to Recommendations A8 and C1. Councilmember Montgomery seconded the motion. Councilmember Ransom moved to add language to A8 to say 'The intent is not to drain the pond, but to maintain it and allow fish access to it.' Councilmember Gustafson accepted this as a friendly amendment."

City Attorney Ian Sievers reviewed two options (A & B) for written Findings, Conclusions and Decision of Critical Areas Special Use Permit for Aegis Assisted Living [Project File No. 201092]. He said the first option was substantially what is currently on the table with certain corrections discussed last week but not included in the motion. Option A includes language that "the intent is not to drain the pond, but to maintain it and allow fish access to it." Option B does not include this language.

### Cost Comparison Review of Recent City Hall Projects

	Total Cost*	Population	Cost/cap.	Year Building Started	Notes
Bellevue	\$102,000,000	116500	\$876	2004	Includes 911 Center (est. \$10 million) and police dept., Qwest bldg(\$5 million) and land (\$24 million)
Redmond	\$36,000,000	46900	\$768	2004	Includes parking garage, police not included.
Woodinville	\$7,270,000	9915	\$733	2000	Includes police dept.
Seatac	\$17,000,000	25130	\$676	2000	Includes police dept.
Bainbridge Island	\$13,368,047	21760	\$614	1998	Does not include police and parks - 19,051 sq.ft.
Shoreline	\$21,000,000	52740	\$398	2006	Includes land only for police dept.
Kelso	\$4,500,000	11800	\$381	2003	Does not include land, parks and rec. Includes police, refurbished old bank bldg -25,000 sq. ft
Lakewood	\$13,200,000	59010	\$224	1999	Does not include land, 54,957 sq.ft.
Federal Way**	\$15,500,000	83590	\$185	2003	Purchased bldg for \$2 million less than assessed, located in suburban office park(not in commercial center), did internal subcontract management.

\* Unless otherwise noted includes parking, land and building

\*\* Purchased bldg for \$2 million less than assessed, located in suburban office park(not in commercial center), did internal subcontract management

Bellevue, POC - Carla Weinheimer 425-452-4114, According to Bellevue POC \$150/sqft is the average cost for typical office construction. They evaluated new construction vs. using Qwest bldg, and calculated costs for it, who parking. The Seattle Justice Center spent \$342/gross sq. ft., Bellevue did theirs for \$275/gross sq. ft.  
 Redmond, POC, Mike Paul 425-566-2721  
 Woodinville City POC - Linda - 425 877 2265  
 Seatac, POC - Pal Patterson, 206.973.4800  
 Federal Way, POC - Derrick Matheson, 253 635 2411



**PACRIM GEOTECHNICAL INC.**GEOTECHNICAL ENGINEERING AND APPLIED EARTH SCIENCES

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10700 Meridian Ave. N., Suite 210 • Seattle, WA. 98133 • Phone: (206) 365-8770 • Fax: (206) 365-8405

December 28, 2004

Echo Lake Associates  
c/o Mr. Michael Trower  
Catapult Community Development  
3240 Eastlake Avenue, Suite 200  
Seattle, WA 98102

Re: **Preliminary Geotechnical Engineering Study**  
**Echo Lake Development Project**  
Shoreline, Washington  
J-132-001

Dear Mr. Trower:

This letter report presents the results of our subsurface explorations and preliminary geotechnical engineering study for the proposed development located at Aurora Avenue North and North 192<sup>nd</sup> Street in Shoreline, Washington. We have prepared this report based on the scope of work outlined in our proposal (P04-95) dated December 6, 2004 and our subsequent discussions for the revised scope of work.

This letter report begins with a summary of our key conclusions and recommendations which is followed by:

- Scope of work;
- Site and project description;
- Subsurface soil and groundwater conditions;
- Geotechnical engineering recommendations;
- Recommended additional geotechnical services; and
- Limitations.

**SUMMARY**

The following summarizes the principal conclusions and recommendations contained within this report. The summary section should be used only as a reminder of the

information discussed in the text. Refer to subsequent sections of the report for further discussion of each point, as well as for other recommendations.

- Subsurface conditions consist of primarily dense to very dense, native Glacial Till and Advance Outwash. The native soils are primarily silty sand and gravelly sand. Fill soils were encountered in some test pits with thickness ranging from 0 to 2 feet, except in Test pits TP-8 and TP-9 where up to 7.0 and 5.5 feet of fills soils were encountered below existing grades, respectively.
- Natural groundwater table was not encountered at the time of our explorations. In Test Pit 2 at the location near Echo Lake, seepage was observed at 4 feet below grade. In Test Pit 8, seepage was observed at 7 feet below grade at the time of our explorations. The seepage conditions observed in these test pits are interpreted as local groundwater perched atop of native Glacial Till and are likely not continuous.
- Place column and wall footings on the dense to very dense, native glacially overridden soils and design foundations using an allowable net bearing pressure of 8,000 pounds per square foot (psf). Backfill any local overexcavation using lean concrete for the high bearing capacity footings.
- If loose fill soils are encountered during footing construction, overexcavate 2 feet below the bottom of footings at locations where loose fills are encountered and replaced with structural fill. Design foundations using an allowable net bearing pressure of 3,000 psf for footings placed on top of medium dense sand or well-compacted structural fill.
- Design slab-on-grade floors for the proposed building, provided that the floor subgrade is proof-rolled and re-compacted to firm and non-yielding conditions.
- In considering the subsurface soil conditions, it is our opinion that a conventional soldier pile and tieback anchor system is the most appropriate method for shoring at the site. Use of soil nails could have a substantially higher risk to the owner because the varying amount of fines content in the Advance Outwash sand and the presence of fill soils along Aurora Avenue (Test Pit 9) and toward the southern perimeter of the proposed city hall building (Test Pit 8). Local perched groundwater may also add difficulties to soil nail construction.

- Groundwater inflows during foundation excavation are expected to be minimal in the native soils; however, some seepage can be expected where perched groundwater exists above the Till. Seepage could likely be contained by drainage via ditches and removed using basic pumping methods. The permanent drainage system should include an underslab drainage layer and a basement wall drainage system.

## SCOPE OF WORK

The scope of this study included the following:

- Review geologic literature and other available geotechnical data for the site;
- Complete field explorations at the project site;
- Perform laboratory testing on selected soil samples;
- Provide preliminary geotechnical engineering design recommendations; and
- Prepare this report.

The field explorations consisted of nine test pits. Our preliminary engineering studies, analyses, and recommendations for design and construction are based on the field test results.

## SITE AND PROJECT DESCRIPTION

We understand that the proposed Shoreline City Hall development is located northeast of the intersection of North 192<sup>nd</sup> Street and Aurora Avenue North. The site is a lowland area just south of Echo Lake. The ground surface slopes to the north with a change in elevation of about 25 feet across the site. The site is currently occupied by mobile homes and a few single-family houses. Most of the open areas are paved with asphalt concrete.

In addition to the proposed City Hall, the site sketch provided to us shows three other proposed buildings on the project site – including two housing structures and an YMCA building. We understand the first floor of the City Hall building will be at about the same grade as Aurora Avenue and will have two levels of below-grade parking that are day-

lighted along the east side of the building. Along Aurora a 20-foot cut will likely be required to grade the site for the below-grade parking.

## **SUBSURFACE CONDITIONS**

We interpreted the subsurface soil conditions at the site based on materials encountered in our nine test pits and laboratory test results. Soil properties inferred from the field tests at this site formed the basis for the foundation design and construction recommendations contained within this report.

Although the conditions are generally consistent, some variability is possible, and may not become fully evident until construction. If variations then appear evident, it may be necessary to re-evaluate the recommendations of this report. Any such re-evaluation should be made by the design team in consultation with the authors of this report.

### ***Test Pit Explorations***

Nine test pits, designated TP-1 through TP-9, were excavated across the proposed building footprints with a tractor-mounted backhoe subcontracted by our firm. The sides of these excavated pits offer direct observation of the subgrade soils. The test pits were located by and excavated under the direction of our engineering geologist. The geologist observed the soil exposed in the test pits and reported the findings on a field log. Groundwater levels or seepage, if encountered, were noted during excavation. The density/consistency of the soils (as presented parenthetically on the test pit logs to indicate their having been estimated) is based on visual observation only as disturbed soils cannot be measured for in-place density in the laboratory.

### ***Soils Consist of Fill and Glacial Till***

The soils encountered in our test pits generally consist of fill soils and native Glacial Till/Advance Outwash. The fill soils are loose to medium dense, silty, gravelly sand. The Glacial Till and Advance Outwash are very strong granular soils that have been directly deposited and overridden by glacial ice.

- **Fill.** Fill soils were encountered in some test pits with thickness ranging from 0 to 2 feet, except in Test pits TP-8 and TP-9 where up to 7.0 and 5.5 feet of fills soils were encountered below existing grades, respectively. Fill soils are primarily loose to medium dense, silty, gravelly sand with scattered organics. We interpret this material as man-made fill.

- **Glacial Till.** The Glacial Till is a dense to very dense, gravelly, silty sand. Weathered Till is often observed in the upper few feet of the formation. We observed this unit to the maximum depths in all nine test pits. Glacial Till will generally support high loads on shallow footings with low settlement. This native soil can be reusable as structural fill during dry weather periods.
- **Advance Outwash.** The dense to very dense gravelly sand generally contains less fines content (silt and clay) than Glacial Till. It inter-mixes with Glacial Till at the project site.

The subsurface soil conditions encountered in our explorations are generally consistent with those reported in the geologic literature for the project site.

#### *Groundwater Seepage*

We observed groundwater seepage in two of the nine test pits completed for this study. This groundwater seepage may be observed in the existing fill and at the Glacial Till contact during construction. This seepage is considered to represent a "perched" groundwater condition, whereby surface water infiltration has collected above the low permeability dense Glacial Till. Note that fluctuations in groundwater seepage occur because of variations in rainfall, temperature, seasons, and other factors.

### **GEOTECHNICAL ENGINEERING CONCLUSIONS AND RECOMMENDATIONS**

This section of the report presents our conclusions and recommendations regarding the geotechnical aspects for construction for the proposed development. We have developed our conclusions and recommendations based on our current understanding of the project and the subsurface soils encountered in our borings. If the nature or location of the facilities and subsurface conditions are different than we have assumed, PacRim should be notified so we can change or confirm our recommendations.

#### *Site Preparation*

Site preparation will involve removal of existing pavements, utilities and structures. We anticipate that the asphalt pavement and fill will be removed as part of the excavation.

We recommend that the removed asphalt and any removed deleterious fill (i.e., topsoil, debris, etc.) not be reused as structural fill.

Initial site preparation will also include demolishing the existing buildings and mobile homes. After demolition, the foundation elements (for the demolished structures) should be removed and any existing underground utilities within the new building area should be removed or abandoned.

The demolished building's foundation should be removed if it lies within 3 feet of the new pavement or floor slab. Abandoned underground utilities should be removed or completely grouted. Ends of remaining abandoned utility lines should be sealed to prevent piping of soil or water into the pipe. Soft or loose backfill materials should be removed, and excavations should be backfilled with structural fill.

### *Construction Dewatering*

Groundwater inflows during construction are expected to be minimal based on the results of our limited explorations. However, our explorations did not extend to the planned excavation grade for the proposed City Hall structure. Some seepage or groundwater bearing stratum may be encountered within the Advance Outwash sand deposit. We recommend that seepage conditions be verified by installing groundwater observation wells below the planned excavation level during the design phase geotechnical investigation.

In the event that seepage is sufficient to cause soil materials to flow into the excavation, additional dewatering measures may be warranted. In the worst case, such conditions can be rectified by installing dewatering wells, or a line of vacuum well points through the shoring system and angling them into the saturated sands behind the wall. Application of a vacuum via a dewatering header pipe located inside the excavation will lower water levels and greatly improve the stability of any flowing soils.

Minor seepage may be encountered at other locations in the excavation side walls and/or bottom. These are not expected to be sufficient to cause soil stability problems or compromise the integrity of the foundation subgrade. Based on our limited explorations, we do not expect perched water on the site to weaken soils excessively, but construction observation is critical to monitor for such conditions and to prevent excessive softening or disturbance of the foundation subgrade.

### *Excavation Retention and Support*

In considering the subsurface soil conditions, it is our opinion that a conventional soldier pile and tieback anchor system is the most appropriate method for shoring at the site. Use of soil nails could have a substantially higher risk to the owner because the varying amount of fines content in the Advance Outwash sand and the presence of fill soils along Aurora Avenue (Test Pit 9) and toward the southern perimeter of the proposed city hall building (Test Pit 8). Local perched groundwater may also add difficulties to soil nail construction.

If a soldier pile and tieback shoring system is selected, we recommend that shoring be designed by a professional engineer registered in the State of Washington and that we be given the opportunity to review the proposed shoring design prior to construction. It is generally not the purpose of this report to provide specific criteria for construction methods, materials, or procedures. It should be the responsibility of the shoring contractor to verify actual ground conditions and the site, and to determine the construction methods and procedures needed for the installation of an appropriate shoring system.

For planning purposes only, we provide the following recommendations for the preliminary design of the soldier pile and tieback shoring system.

- For a cantilever wall or wall with a single row of tiebacks or internal struts, lateral earth pressures can be approximated as uniform loads with a triangular pressure distribution and equivalent fluid density of 32 and 52 pounds per cubic foot (pcf) are appropriate for active and at rest conditions, respectively, in the dense to very dense sand deposit.
- For a wall with multiple tiebacks or multiple internal struts, the distribution assumes a simple area contribution of stress to each tieback anchor or strut and is intended to predict the maximum loads that could reasonably be expected for a given depth of cut at this site. Lateral earth pressures based on the height (H) of the excavation can be approximated as a trapezoid loads of 25 H pounds per square foot (psf) for the active condition and 30 H psf for the at rest condition in the dense to very dense sand deposit.
- The lateral pressures presented herein are based on a level back slope behind the walls and dewatered conditions so that hydrostatic pressure does not act on the walls. We recommend that at least 2 feet be added to the proposed excavation

depth for computations to provide some allowance for possible surface pressures near the excavation (e.g., light equipment, small material stockpiles, etc.).

- The allowable passive pressure for dense sand below the bottom of excavation would be on the order of  $350 D$  psf, where  $D$  is the embedment length of the pile below the bottom of excavation.
- The lateral earth pressures given above do not include hydrostatic water pressures (if any) and may be increased by the seismic earth pressures for permanent shoring walls. This additional lateral earth pressure can be approximated as rectangular uniform load of  $5 H$  for a yielding wall (active conditions) or a permanent basement wall constructed directly against the yielding shoring wall. Use  $15 H$  to approximate seismic earth pressures for non-yielding (at rest) conditions.
- Soldier piles must be designed to carry the bending stresses between tiebacks and the vertical load resulting from down-angle tieback anchors. The stresses can be calculated from the apparent earth pressure diagrams. The soldier pile must be embedded deeply enough (at least 10 feet below bottom of excavation) to resist these vertical loads and to provide kickout resistance for the portion of the wall below the lowest support.
- The soldier pile can be designed using an allowable end bearing of 40 kips per square foot (ksf) and allowable side friction of 1.0 ksf.
- The tieback system can be designed using an allowable adhesion of 1.5 kips per square foot for grouted anchor embedded in the dense sand. The grouted anchor should be located outside the "no-load zone" behind the shoring wall.

We recommend maintaining at least a 1 horizontal to 1 vertical (1H:1V) temporary cut slope for open cut excavation in the Glacial Till and Advance Outwash sands. For the fill soils, we recommend maintaining at least a 1.5H:1V temporary cut slope. Additionally, we recommend protecting the open cut with plastic tarp (i.e., visqueen) to prevent potential erosion during wet weather conditions.

### ***Shallow Foundations***

We recommend shallow footings and slab-on-grade floors for the support of the proposed City Hall and other building structures. Our design recommendations include:



- Place column and wall footings on the dense to very dense, native Glacial Till/Advacne Outwash sand and design foundations using an allowable net bearing pressure of 8,000 psf. Backfill any local overexcavation using lean concrete for the high bearing capacity footings.
- If loose fill soils are encountered during footing construction, overexcavate 2 feet below the bottom of footings at locations where loose fills are encountered and replaced with structural fill. Design foundations using an allowable net bearing pressure of 3,000 psf for footings placed on top of medium dense sand or well-compacted structural fill.
- Construct isolated column footings with a minimum width of 24 inches and continuous footings with a minimum width of 18 inches. Place the base of footings at least 18 inches below the lowest adjacent finished grade.
- Allow an increase in the allowable soil bearing pressure of up to one-third for loads of short duration, such as those caused by wind or seismic forces.
- Found footings outside of an imaginary (1H:1V) plane projected upward from the bottom edge of adjacent footings or utility trenches.
- Estimate resistance to lateral movement by using an allowable equivalent passive fluid weight equal to 350 pcf and an allowable coefficient of friction of 0.30.

#### Foundation Settlements

We expect the foundation soils to behave primarily elastically with settlements occurring quickly. The settlements are expected to occur as the loads are applied. Assuming proper subgrade preparation and typical footing loads for one-story structure, we expect footings to experience total settlements of less than 1/2 inch. Maximum differential settlements are estimated to be one-half to two-thirds of the total settlements. Differential settlements will vary based both on construction procedures and varying loads. We should review the final foundation layout to assess footing interaction and to review our settlement estimates once the actual column loads and layout are available.

#### Foundation Construction

The foundation settlements given herein assume careful preparation and protection of the exposed subgrade will occur prior to concrete placement. Any loosening of the materials

during construction could result in larger settlements than those estimated. It is important that all foundation excavations be cleaned of loose or disturbed soil prior to placing any concrete and that there be no standing water in any foundation excavation. All tree stumps and root systems should be completely removed and backfilled with well-compacted structural fill prior to the placement of footings.

We recommend that a representative of PacRim be present to observe each foundation excavation prior to placement of any concrete.

#### Floor Slab Design

The floor slabs may be constructed as slab-on-grade and should be underlain by a minimum 4-inch thickness of clean drainage fill. This layer serves as a capillary break and is intended to reduce the potential build-up of hydrostatic pressures beneath the slab.

Following excavation and footing construction it is likely that some loosening of the soil near the surface will occur. The loose areas can be identified by proof-rolling the subgrade with a heavy roller or dump truck. Loose areas should be re-compacted or removed to provide a dense, non-yielding surface for the placement of drainage fill or for slab construction. All tree stumps and root systems should be completely removed and backfilled with well-compacted structural fill.

#### *Reuse of On-Site Soils and Structural Fills*

The suitability of excavated site soils for compacted structural fill will depend upon the gradation and moisture content of the soil when it is placed. As the amount of fines (that portion passing the No. 200 sieve) increases the soil becomes increasingly sensitive to small changes in moisture content and adequate compaction becomes more difficult to achieve. Soil containing more than about five percent fines cannot be consistently compacted to a dense non-yielding condition when the water content is more than about two percent above or below optimum.

The site soils generally contain a moderately to high percentage of fines, making them sensitive to small changes in moisture content. We expect that, in general, the site soils will be near optimum coming from the excavation, and compaction should be possible without moisture-conditioning assuming the soil stockpiles are protected with visqueen and favorable weather. Because of this moisture-sensitivity, most site soils can be excavated and placed as structural fill only during extended dry weather periods.

In the event that fill material used at the site needs to be imported, we recommend importing high quality, pit-run sand or sand and gravel with a maximum size of 4 inches and a maximum fines content of five percent. This will allow the broadest use of the material at the site.

We make the following recommendations concerning structural fill:

- Place all fill beneath footings, slabs-on-grade, pavement areas, or behind backfilled subgrade walls as structural fill;
- Place structural fill in lifts not exceeding 12 inches loose thickness and compact to a minimum of 95 percent of the modified Proctor maximum dry density as determined by ASTM D 1557;
- Within 2 feet of rigid concrete subgrade walls and deeper than 3 feet beneath pavement sections, compact structural fill to 92 percent of the maximum ASTM D 1557 value. Adjacent to concrete walls, use small hand-operated equipment to avoid subjecting the wall to excessive lateral pressures resulting from "overcompaction";
- If fill is placed during wet weather, use an imported clean, well-graded sand and gravel with less than 5 percent by weight passing the No. 200 sieve (based on the minus ¾-inch fraction);
- Use well-graded sand and gravel with a fines content of less than 3 percent (based on the minus ¾-inch fraction) within 4 inches of slabs-on-grade (drainage layer), 18 inches of backfilled subgrade walls, and around all drains;
- Before structural fill placement, remove, re-compact, or dry all disturbed, loose, or wet subgrade areas; and
- Remove all organic surface materials (including tree stumps, roots, and topsoils) before structural fill placement.

Before fill control can begin, the compaction characteristics must be determined from representative samples of the structural fill. Samples should be obtained from the site or import borrow area as soon as work begins. A study of the compaction characteristics should include determination of optimum and natural moisture contents of these soils at the time of placement.

### *Drainage Considerations*

Slight groundwater seepage was encountered during excavation of test pits. However, regardless of whether significant water is encountered during the construction phase, it is a proper precaution to provide some type of permanent drainage system. The following recommendations for a drainage system below slabs and base of foundations are general and intended to protect the foundation and floors from the detrimental effects of water.

- **A Capillary Break.** At least 4 inches of clean sandy Gravel should be placed over the entire footprint under the slab-on-grade floor. A layer of polyethylene sheeting (visqueen) should be provided to protect the drainage layer from concrete as the floor slab is poured.
- **Perimeter Footing Drain.** We recommend drains be installed near the base of the perimeter wall footings. The perimeter drains should be a minimum 4-inch-diameter perforated pipe, and also should be surrounded by 6 inches of drainage material. All drainage pipe should be sloped to drain.

For the proposed City Hall building, since our explorations did not extend beyond the planned bottom of excavation, we can not rule out the possibility that excavation to the lowest level of the structure may be below the natural groundwater table. If this is the case, then installation of a permanent drainage system will be required to collect and remove water, and prevent any build-up of water pressures. We anticipate a permanent dewatering system for this project site would consist of:

- **An Underslab Drainage Layer/Capillary Break.** At least 6 inches of clean sandy Gravel, with a perforated drainage pipe bedded in the gravel, should be placed across the building footprint, draining to an underslab sump. A layer of polyethylene sheeting (visqueen) should be provided to protect the drainage layer from concrete as the floor slab is poured.
- **A Basement Wall Drainage System.** This can consist of Miradrain-type composite panels laid flush on the outside of the permanent wall, and connecting to a collector pipe that runs along the footing, at an elevation lower than the bottom of the floor slab. This will allow water collected outside the wall to be tight-lined beneath the slab and into the central drainage sump.

- **A Drainage Sump.** The sump should be installed beneath the lowest floor slab to collect water from the underslab and footing drain/wall drainage systems. The sump needs to be equipped with a float-activated dewatering pump.

**Waterproofing.** Note that the described sub-slab and foundation perimeter drainage system is designed to prevent a damaging build-up of hydrostatic pressure. The recommended systems may not result in a totally dry foundation subgrade or slab. If waterproofing is required below grade, we recommend placement of a heavy plastic liner against the walls coupled with full coverage of a drainage medium such as miradrain. Alternatively, Volclay panels may be used.

Slope pavement and sidewalks to drain away from the building and provide adequate runoff disposal. Do not tie the roof drains to any of the subgrade wall drainage pipes.

### *Pavement Sections*

We recommend that pavement sections be constructed over a subgrade surface consisting of either non-yielding compacted native soils or compacted structural fill. We recommend PacRim observe proof-rolling of pavement subgrades to confirm that a firm and non-yielding surface exists for pavement support. We recommend the following pavement sections:

- **Car Parking Areas.** Three inches Class B asphalt concrete over four inches crushed rock base course.
- **Driveway and Fire Lane.** Four inches Class B asphalt concrete over six inches crushed rock base course.

### *Seismic Design*

The site soils are interpreted to be Site Class C as defined in 2003 International Building Code (IBC). The mapped spectral response accelerations at short period ( $S_s$ ) and at one-second period ( $S_1$ ) are 1.20 and 0.42, respectively. The risk of seismic hazards, such as soil liquefaction, lateral spreading, fault rupture, and slope instability, is considered low at this site.

## **RECOMMENDED ADDITIONAL GEOTECHNICAL SERVICES**

A design-level geotechnical investigation and engineering study should be conducted in the next phase of development. Soil borings and groundwater observation wells should be installed for the City Hall building where up to 20 feet of excavation is planned along the Aurora Avenue. The preliminary design recommendations contained in this report should be revised based on the findings and results of the additional study.

Before construction begins, we recommend that PacRim review the final foundation design plans and specifications in order to see that the geotechnical engineering recommendations are properly interpreted and implemented into the design.

During the construction phase of the project, we recommend that PacRim observe the following activities:

- Excavation and placement of foundations and slabs-on-grade;
- Installation of shoring;
- Review of shoring system displacement and monitoring results;
- Drainage elements;
- Proof rolling of pavement subgrades;
- Utility installation;
- Placement and testing of compacted material; and
- Other geotechnical engineering considerations that may arise during the course of construction.

The purpose of these observations is to observe compliance with the design concepts, specifications, or recommendations and to allow design changes or evaluation of appropriate construction measures in the event that subsurface conditions differ from those anticipated prior to the start of construction.

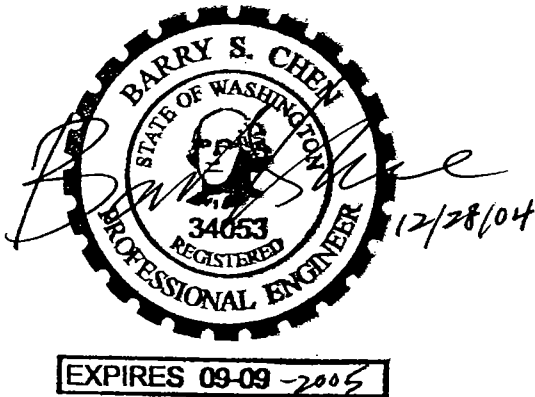
## LIMITATIONS

Our report is for the exclusive use of Echo Lake Associates and its design consultants for specific application to the subject project and site. We completed this study in accordance with generally accepted geotechnical practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. We make no other warranty, express or implied.

We trust that this report meets your project needs. If you have questions or if we can be of further assistance, please call.

Sincerely,

PACRIM GEOTECHNICAL, INC.



Barry S. Chen, Ph.D., P.E.  
Principal

### Attachments:

- Figure 1 - Exploration Location Plan
- Appendix A - Test Pit Logs TP-1 to TP-9
- Appendix B - Laboratory Test Results



■ Test Pit Locations



**APPENDIX A**  
**TEST PIT LOGS**

Test Pit 1		Approximate Surface Elevation: 404 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Dirt and Gravel	
0	SILTY SAND (SM): moist, medium dense; Gravel (30%), coarse to fine, subrounded to subangular, to 2-inches; Sand (50%), fine to medium; Silt/Clay (20%), non-plastic to slightly plastic; reddish brown grading to brownish gray at 2 feet, with organics (roots), oxidized at 2.8 feet to 3 feet. Weathered Glacial Till (Qvt).	
3	GRAVELLY SAND WITH SILT (SW-SM): moist, very dense; Gravel (30-40%), coarse to fine, to 4-inches, subrounded to subangular; Sand (55-65%) fine to medium, some coarse; Silt/Clay (15-20%), non-plastic; moderate gray. Glacial Ablation Till (Qvt)/Advance Outwash (Qva).	4.5 8.5
9 feet	Total Depth	No Groundwater Encountered
	Backfilled with native materials to ground surface	

Test Pit 2		Approximate Surface Elevation: 398 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Sod and topsoil, 6-inches	
0.5	SILTY SAND (SM): moist, medium dense; Gravel (15%), coarse to fine, subrounded to subangular, to 4-inches; Sand (65%), fine; Silt/Clay (20-30%), non-plastic to slightly plastic; brown grading to brownish gray at one foot, with organics (roots), oxidized at 1.8 feet to 2.2 feet. Weathered Glacial Till (Qvt).	
2.2	GRAVELLY SAND (SW): moist to wet, very dense; Gravel (30-40%), coarse to fine, to 6-inches, subrounded to subangular; Sand (50-55%) fine to medium, some coarse; Silt/Clay (10-15%); moderate gray. Glacial Ablation Till (Qvt)/Glacial Advance Outwash (Qva).	3
4.0	GRAVELLY SAND WITH SILT (SW-SM): moist, very dense; Gravel (20-25%), coarse to fine, predominantly fine, to 10-inches, subrounded to subangular; Sand (55-60%) fine to coarse; Silt/Clay (25-30%), non-plastic; moderate gray, non-stratified. Glacial Till (Qvt).	
6.5 feet	Total Depth	Groundwater seepage at 4 feet.
	Backfilled with native materials to ground surface	

Test Pit 3		Approximate Surface Elevation: 400 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Sod and topsoil, 3-inches	
0.5	SILTY SAND (SM): moist, medium dense; Gravel (20-30%), coarse to fine, subrounded to subangular, to 4-inches; Sand (60%), fine to medium; Silt/Clay (20%), slightly plastic; brownish gray, with organics (roots). (Fill)	
2.2	SILTY SAND (SM): moist, dense; Gravel (20-30%), coarse to fine, predominantly fine, to 8-inches, subrounded to subangular; Sand (65%) fine; Silt/Clay (25-30%), slightly plastic; moderate gray, non-stratified, oxidized along fractures, organics (roots). Weathered Glacial Till (Qvt).	4.5
5.0	SILTY SAND (SM): moist, very dense; Gravel (20-30%), coarse to fine, predominantly fine, to 8-inches, subrounded to subangular; Sand (65%) fine; Silt/Clay (15-20%), non-plastic to slightly plastic; moderate gray to brownish gray, stratified to laminated. Glacial Ablation Till (Qvt)/Glacial Advance Outwash (Qva).	7.5
8	SILTY SAND (SM): moist, dense; Gravel (20-30%), coarse to fine, predominantly fine, to 8-inches, subrounded to subangular; Sand (65%) fine; Silt/Clay (25-30%), slightly plastic; moderate gray, non-stratified. Glacial Till (Qvt).	
9 feet	Total Depth	No groundwater encountered.
	Backfilled with native materials to ground surface	

Test Pit 4		Approximate Surface Elevation: 413 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Sod and topsoil, 3-inches	
0.25	SILTY SAND (SM): moist, dense; Gravel (20%), coarse to fine, predominantly fine, to 10-inches, with cobbles, subrounded to subangular; Sand (60-65%) fine to coarse; Silt/Clay (20%), non-plastic; reddish brown grading to moderate gray at 3 feet, non-stratified, organics (roots). Boulder at surface (14x14x10-inches). Weathered Glacial Till (Qvt).	0-4
4.2	SILTY SAND (SM): moist, dense; Gravel (30%), coarse to fine, predominantly fine, to 10-inches, with cobbles, subrounded to subangular; Sand (60-65%) fine to coarse; Silt/Clay (20%), non-plastic; moderate gray, non-stratified, organics (roots). Boulder at 5 feet (12x14x16-inches), cobble at 4 feet (8x9x10-inches). Glacial Till (Qvt).	5, 6.5
8.0	SILTY SAND (SM): moist to damp, very dense; Gravel (20-30%), coarse to fine, predominantly fine, to 8-inches, subrounded to subangular; Sand (65%) fine; Silt/Clay (15-20%), non-plastic to slightly plastic; moderate gray to brownish gray, stratified to laminated. Glacial Ablation Till (Qvt)/Glacial Advance Outwash (Qva).	8
8.5	SAND WITH GRAVEL (SW): moist to dry, dense; Gravel (30%), coarse to fine, to 6-inches, subrounded to subangular; Sand (65%) fine; Silt/Clay (<5%); moderate gray, stratified with 6 to 8-inch interbeds of sandy gravel. Glacial Advance Outwash (Qva).	9
9.5 feet	Total Depth	No groundwater encountered.
	Backfilled with native materials to ground surface	

Test Pit 5		Approximate Surface Elevation: 422 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Dirt and scattered crushed rock	
0	SILTY SAND (SM): moist, medium dense; Gravel (20%), coarse to fine, predominantly fine, to 10-inches, with cobbles, subrounded to subangular; Sand (60-65%) fine to medium; Silt/Clay (20%), non-plastic; brown, non-stratified, organics (roots). (Fill)	1
1.2	SILTY SAND (SM): moist, dense; Gravel (20%), coarse to fine, Sand (60-65%) fine to medium; Silt/Clay (20%), non-plastic; moderate gray, non-stratified. Weathered Glacial Till (Qvt).	
2.8	SANDY GRAVEL (GW): moist to dry, very dense; Gravel (60-65%), coarse to fine, predominantly fine, to 2-inches, subrounded to rounded, flattened to slightly elongated; Sand (20%) fine; Silt/Clay (<5%), moderate gray to yellowish gray, stratified, gravel has dark oxidized coating. Glacial Advance Outwash (Qva).	3
3.0	SAND WITH GRAVEL (SW): moist to dry, dense; Gravel (20%), coarse to fine, predominantly fine, subrounded to rounded, flat/elongated; Sand (75%), medium to fine; Silt/Clay (<5%); yellowish gray, stratified with 6 to 8-inch interbeds of gravel to 2-inches. Gravel has dark oxidized coating. Glacial Advance Outwash (Qva).	6
9.0	SAND WITH GRAVEL (SW): moist to dry, dense; Gravel (20%), coarse to fine, predominantly fine, to 6-inches, subrounded to rounded, flat/elongated; Sand (75%), medium to fine; Silt/Clay (<5%); yellowish gray, stratified, lightly cemented. Cobble at 9.5 feet 12x10x8-inches. Glacial Advance Outwash (Qva).	
9.5 feet	Total Depth	No groundwater encountered.
	Backfilled with native materials to ground surface	

<b>Test Pit 6</b>		Approximate Surface Elevation: 410 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Dirt and Gravel	
0	SILTY SAND (SM): moist, medium dense; Gravel (20%), coarse to fine, subrounded to subangular, to 2-inches; Sand (60%), fine to medium; Silt/Clay (20%), non-plastic to slightly plastic; yellowish brown. (Fill)	
1.2	SILTY SAND WITH GRAVEL (SM): moist, very dense; Gravel (30-35%), coarse to fine, to 6-inches, subrounded to subangular; Sand (60-65%) fine to medium, some coarse; Silt/Clay (15-20%), non-plastic; moderate gray. Glacial Ablation Till (Qvt).	5.5
6 feet	Total Depth	No Groundwater Encountered
	Backfilled with native materials to ground surface	

Test Pit 7		Approximate Surface Elevation: 411 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Dirt and Gravel	
0	SILTY SAND (SM): moist, dense; Gravel (30%), coarse to fine, predominantly fine, subrounded to subangular, to 2-inches; Sand (60%), fine to medium; Silt/Clay (20%), non-plastic to slightly plastic; brown. Weathered Glacial Till (Qvt).	
2	SILTY SAND (SM): moist, very dense; Gravel (30%), subrounded to subangular, fine to medium, some coarse; Sand (55-60%) fine to medium; Silt/Clay (20-30%), non-plastic to slightly plastic; moderate gray, non-stratified, occasional cobbles to 10-inches. Glacial Till (Qvt).	
4	GRAVELLY SAND (SW): moist to damp, very dense; Gravel (35-40%), coarse to medium, to -inches, subrounded to subangular, some rounded; Sand (60-65%) fine to medium, some coarse; Silt/Clay (<5%); moderate gray, stratified, oxidized in places. Glacial Advance Outwash (Qva).	4, 5, 8
8.5 feet	Total Depth	No Groundwater Encountered
	Backfilled with native materials to ground surface	



Test Pit 8		Approximate Surface Elevation: 404 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	Dirt, 2-inches crushed rock	
0	SILTY SAND (SM): moist, dense; Gravel (20%), coarse to fine, predominantly fine, subrounded to subangular, to 2-inches; Sand (60%), fine; Silt/Clay (20%), non-plastic to slightly plastic; brown, non-stratified. (Fill)	
0.8	SILTY SAND (SM): moist, dense; Gravel (30%), subrounded to subangular, fine to medium, some coarse; Sand (55%) fine; Silt/Clay (20-30%), non-plastic to slightly plastic; moderate gray, non-stratified. (Fill)	
1.8	SILTY SAND (SM): moist, dense; Gravel (20%), coarse to fine, predominantly fine, subrounded to subangular, to 2-inches; Sand (60%), fine; Silt/Clay (20%), non-plastic to slightly plastic; brown, non-stratified, with organics (roots). (Fill)	5.3
7.0	GRAVELLY SAND WITH SILT (SW-SM): moist to wet, medium dense; Gravel (35%), subrounded to rounded, to 3-inches; Sand (6%), fine to medium; Silt/Clay (15-20%); reddish brown. Old soil horizon, Weathered Glacial Till (Qvt)	7.3
7.7	SILTY SAND (SM): moist, very dense; Gravel (30%), subrounded to subangular, fine to medium, some coarse; Sand (55%); Silt/Clay (20-30%), non-plastic to slightly plastic; moderate gray, non-stratified, occasional cobbles to 10-inches. Glacial Till (Qvt).	
8.5 feet	Total Depth	Groundwater seepage at 7 ft.
	Backfilled with native materials to ground surface. 12-inch concrete storm pipe at 4 feet.	

Test Pit 9		Approximate Surface Elevation: 414 feet
Depth (feet)	Soil Description	Sample Depths (feet), Groundwater
Surface	2-inches asphalt, dirt	
0	SILTY SAND (SM): moist, dense; Gravel (30%), coarse to fine, predominantly fine, subrounded to subangular, to 2-inches; Sand (60%), fine to coarse; Silt/Clay (15-30%), non-plastic to slightly plastic; grayish brown, non-stratified, with organics. (Fill)	
5.5	SILTY SAND WITH CLAY (SM): moist, dense; Gravel (20%), subrounded to subangular, fine to medium, some coarse, to 3-inches; Sand (55%) fine; Silt/Clay (20-30%), non-plastic to slightly plastic; moderate gray, non-stratified, with organics (old soil horizon). Weathered Glacial Till (Qvt)	
6.8	SILTY SAND (SM): moist, very dense; Gravel (30%), subrounded to subangular, fine to medium, some coarse, to 6-inches; Sand (%) fine to medium; Silt/Clay (15-20%), non-plastic to slightly -plastic; moderate gray, non-stratified, occasional cobbles to 10-inches. Glacial Till (Qvt).	
11 feet	Total Depth	No groundwater encountered.
	Backfilled with native materials to ground surface. Encountered concrete stem wall from 2 to 5.5 feet in depth, 6 to 8 inches in width, trends north to south, 3 feet west of existing fence.	

## **APPENDIX B**

### **LABORATORY TESTING PROGRAM**

A laboratory-testing program was performed for this study to evaluate the basic index and geotechnical engineering properties of the site soils. The tests performed and the procedures followed are outlined below.

#### *Soil Classification*

**Field Observation and Laboratory Analysis.** Soil samples from the explorations were visually classified in the field and then taken to our laboratory where the classifications were verified in a relatively controlled laboratory environment. Field and laboratory observations include density/consistency, moisture condition, and grain size and plasticity estimates. The classifications of selected samples were checked by grain size analyses. Classifications were made in general accordance with the Unified Soil Classification (USC) System, ASTM D 2487.

#### *Water Content Determinations*

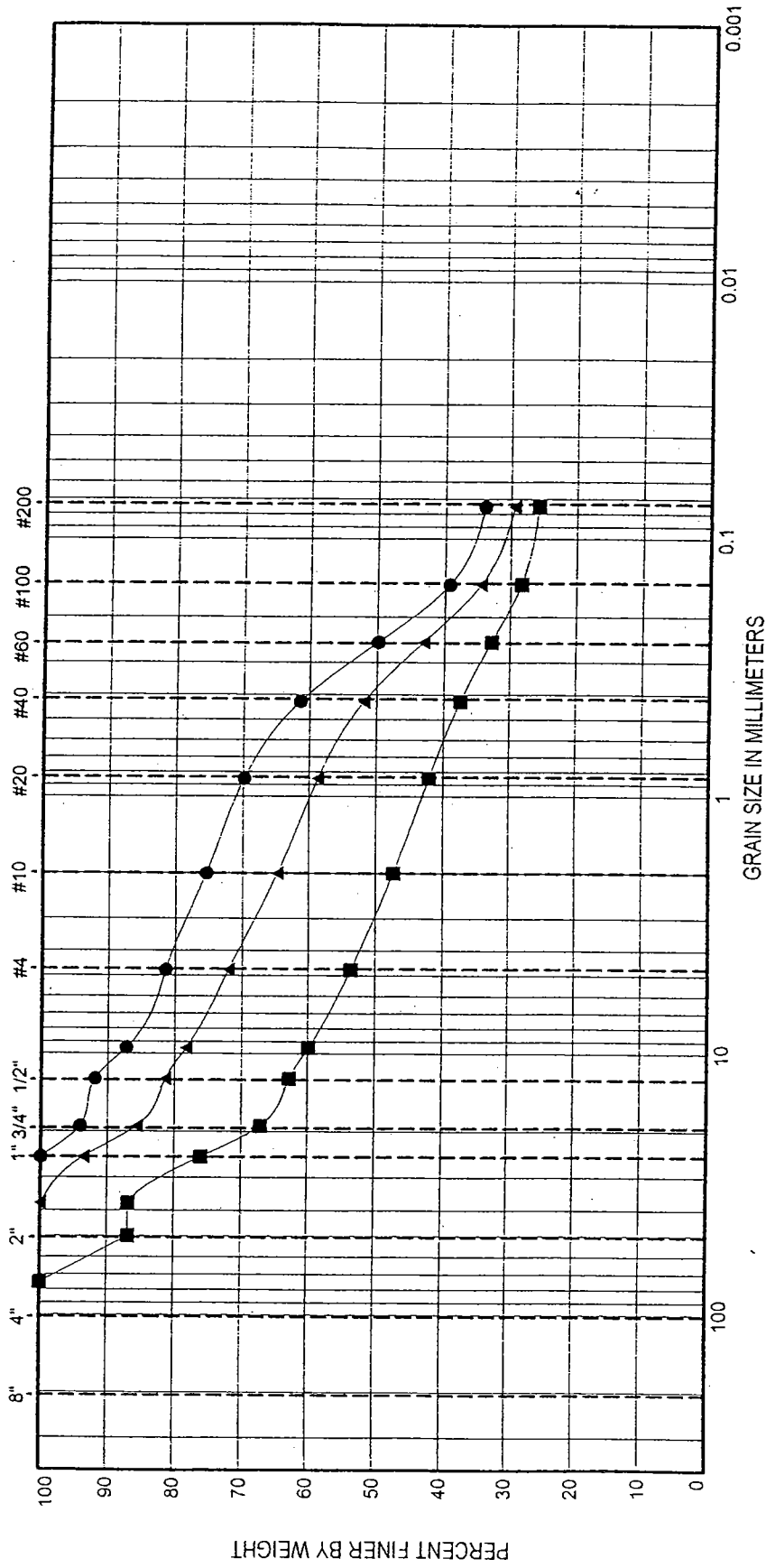
Water contents were determined for three samples recovered in the explorations in general accordance with ASTM D 2216, as soon as possible following their arrival in our laboratory. The results of these tests are presented as part of the Grain Size Analysis.

#### *Grain Size Analysis (GS)*

Grain size distribution was analyzed on representative samples in general accordance with ASTM D 422. Wet sieve analysis was used to determine the size distribution greater than the U.S. No. 200 mesh sieve. The results of the tests are presented as curves on Figure B-1 plotting percent finer by weight versus grain size.

COBBLES	GRAVEL			SAND			SILT	CLAY
	Coarse	Medium	Fine	Coarse	Medium	Fine		

U.S. STANDARD SIEVE SIZES



SYMBOL	SAMPLE	CLASSIFICATION	% MC	LL	PL	PI	% Gravel	% Sand	% Fines
●	TP-1	SILTY SAND WITH GRAVEL, grey, clayey, oxidized.	8				19	48	34
■	TP-2	SILTY SAND WITH GRAVEL, gray/reddish, clayey, oxidized, with organics.	10				46	28	26
▲	TP-8	SILTY SAND WITH GRAVEL, grey/tan, oxidized, with organics.	12				28	43	29

# GRAIN SIZE ANALYSIS TEST RESULTS

Shoreline Holiday Resort  
Shoreline, WA  
Catapult

**PACRIM GEOTECHNICAL INC.**  
GEOTECHNICAL ENGINEERING AND APPLIED EARTH SCIENCES



# HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Development  
 Office of Archaeology and Historic Preservation  
 111 21st Avenue SW, P.O. Box 4843  
 Olympia, WA 98504-8343 (360) 753-4011

## LOCATION SECTION

Address 19230 Aurora Ave N  
 City/Town/County/Zip Code Shoreline King 98133  
 Twp. / Range / Section 26-04-06 1/4 Section 1/4 1/4 Section  
 Tax No./Parcel No. 2222900040 Acreage  
 Quadrangle or map name  
 UTM References Zone Easting Northing  
 Flat / Block / Lot Echo Lake Garden Tracts, L20  
 Supplemental Map(s)



High Styles/Forms (check one or more of the following) Colonial Revival  
 Gothic Revival  
 Italianate  
 Second Empire  
 Romanesque Revival  
 Stick Style  
 Queen Anne  
 Shingle Style  
 Colonial Revival  
 Beaux Arts / Classical  
 Chicago / Commercial Style  
 American Foursquare  
 Mission Revival  
 Spanish Colonial Revival/ Mediterranean  
 Tudor Revival  
 Craftsman/Arts & Crafts  
 Bungalow  
 Prairie Style  
 Art Deco/Art Moderne  
 Rustic Style  
 International Style  
 Northwest Style  
 Commercial Vernacular  
 Residential Vernacular (see below)  
 Other (specify)

Vernacular House Types  
 Gable Front  
 Gable front and wing  
 Side Gable  
 Cross Gable  
 Pyramidal/Hipped  
 Other (specify)

Field Site No. 0297 OAHF No.  
 Site Name Historic Weiman House  
 Common  
 Field Recorder Copass / Sundberg  
 Owner's Name McCue & Associates  
 Address 410 Bellevue Way SE  
 City/State/Zip Code Bellevue WA, 98004

Status Survey/Inventory  
 Survey / Inventory  
 National Register  
 State Register  
 Determined Eligible  
 Determined Not Eligible  
 Other (HABS, HAER, NHL)  
 Local Designation

PHOTOGRAPHY  
 Photography Neg. No. 03:23-24  
 (Roll No. & Frame No.)  
 View of  
 Date

Classification [ ] District [ ] Site [ ] Building [ ] Structure [ ] Object building  
 District Status [ ] NR [ ] SR [ ] LR [ ] INV  
 Contributing [ ] Non-Contributing [ ]  
 District/Thematic Nomination Name

DESCRIPTION SECTION  
 Materials & Features / Structural Types  
 Building Type residential  
 Plan rectangular  
 Structural System wood frame  
 No. of Stories 2

Roof Type gambrel  
 Gable  
 Hip  
 Flat  
 Monitor  
 Gambrel  
 Shed  
 Other (specify)

75 Cladding (Exterior Wall Surface) stucco/shingle  
 Log  
 Horizontal Wood Siding  
 Rustic Drop  
 Clapboard  
 Wood Shingle  
 Board and Batten  
 Vertical Board  
 Asbestos/Asphalt  
 Brick  
 Stone  
 Stucco  
 Terra Cotta  
 Concrete/Concrete Block  
 Vinyl/Aluminum Siding  
 Metal (specify)  
 Other (specify)

Roof Material composition  
 Wood Shingle  
 Wood Shake  
 Composition  
 Slate  
 Tarr/Built-up  
 Tile  
 Metal (specify)  
 Other (specify)  
 Not visible

Foundation concrete  
 Log  
 Post & Pier  
 Block  
 Stone  
 Brick  
 Poured  
 Not Visible  
 Other (specify)

Integrity (include detailed description in Description of Physical Appearance)  
 Changes to plan ..... Intact  
 Changes to windows ..... Intact  
 Changes to original cladding ..... Intact  
 Changes to interior ..... Intact  
 Other (specify) ..... Intact

Slight Moderate Extensive  
   moderate  
   extensive  
   moderate

**NARRATIVE SECTION**

Study Unit Themes (check one or more of the following)

- Agriculture
- Architecture/Landscape Architecture
- Arts
- Commerce
- Communications
- Community Planning/Development

Architecture

- Conservation
- Education
- Entertainment/Recreation
- Ethnic Heritage (specify) \_\_\_\_\_
- Health/Medicine
- Manufacturing/Industry
- Military

File No. 0297

**Statement of Significance**

Date of Construction 1924 Architect / Engineer / Builder \_\_\_\_\_

In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places.

In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

The Weiman family was the first to settle on Echo Lake. Mr. Weiman, a bricklayer, had immigrated from Germany. In the early 1900s, the family built a small house on the lake. Later, the Emmes family settled on the lake, and until 1913, these two families were the only residents of the area.

In 1924, the Weimans built this large family home. In 1947, the property was sold to C.B. McNaughton who built resort cabins on the acreage. The cabins were removed in the early 1960s when the McNaughtons started the Holiday Resort and Trailer Park, which still occupies the surrounding six acres.

**Description of Physical Appearance**

The Weiman House is a 2 story, Dutch Colonial wood frame building. The house measures approximately 30' x 44', with a wing extending on the SE corner. The house has a concrete foundation, with a full basement that extends approximately 3' above grade. The foundation is surfaced with stone. The exterior walls are stucco at the first story, and shingle in the upper gable ends. The gambrel roof has two 14' dormers, one on each of the roof slopes. Composition shingles have replaced the original wood shingles. The windows are single hung with multi-paned top sashes. They appear in bays of three windows on each of the dormers, and singly or in groups of three on the other elevations. The 15' wide porch is recessed 11' into the west facade, within the span of the main roof. Glass blocks, flush with the exterior wall, partially enclose the porch; these were added in the 1940s. Construction of a trailer park, including the siting of trailers immediately adjacent to the building, has altered the historic lakeside setting of the house.

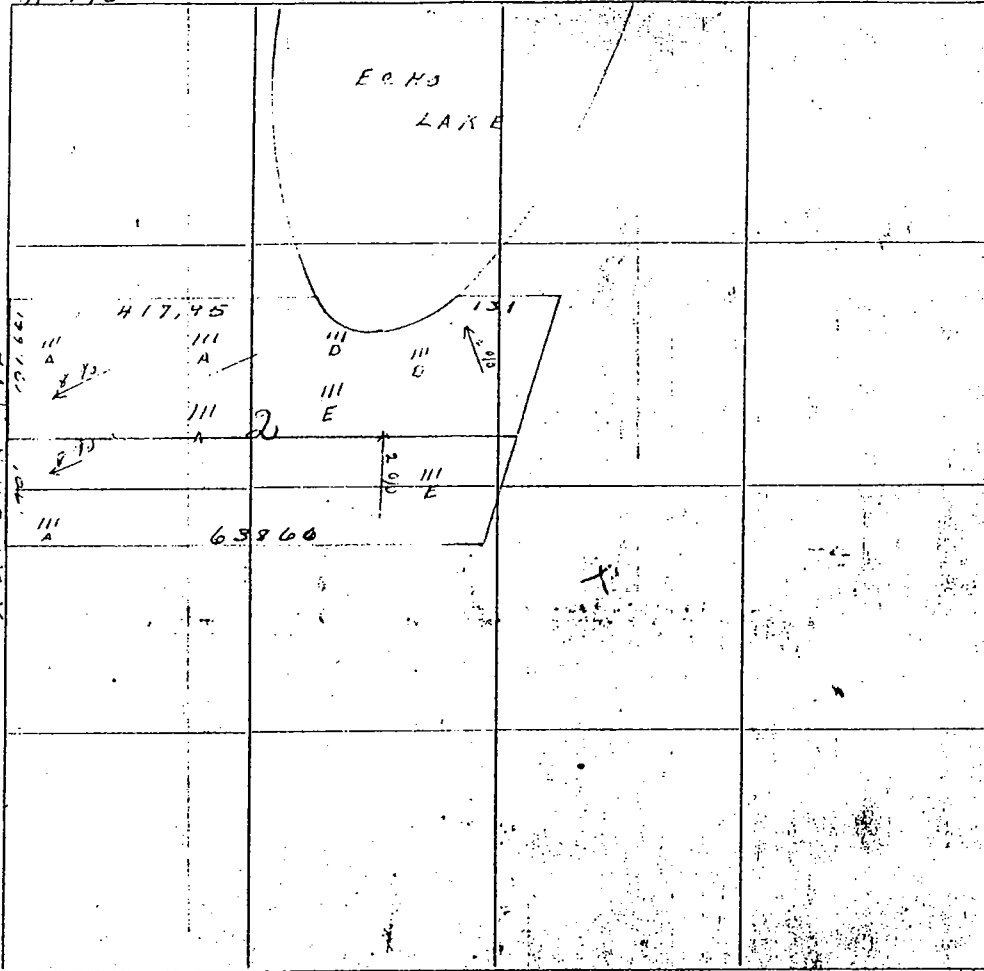
**Major Bibliographic References**  
 King County Historic Resources Inventory #0297, 4/78.  
 Ruth Worthley, Ed. Shoreline Memories, Vol. I, 1975

LAND CLASSIFICATION AND SEGREGATION

THIS SQUARE INDICATES \_\_\_\_\_ ACRES 200 = 1"

N 195 ST INDICATE BY AREAS, USE OF LAND BY MARKS AND TYPE BY LETTERS

SECTION S.E. 1/4 6.  
TWP. 26 N  
RANGE 4 E



AERIAL PHOTO  
QUARTER MAP  
PLAT MAP

FOLIO # 00.0059

LAND USE ACRES  
III CULTIVATED \_\_\_\_\_  
# PASTURE \_\_\_\_\_  
OO TIMBER \_\_\_\_\_  
XX STUMP \_\_\_\_\_  
... GRAVEL OR USELESS \_\_\_\_\_  
V SWAMP \_\_\_\_\_

LAND TYPE ACRES  
A SHOT CLAY \_\_\_\_\_  
B BOG \_\_\_\_\_  
C PEAT \_\_\_\_\_  
D SILT \_\_\_\_\_  
E LOAM \_\_\_\_\_  
F GRAVEL \_\_\_\_\_  
G BOTTOM \_\_\_\_\_  
H UPLANDS \_\_\_\_\_  
K HILLY \_\_\_\_\_

IF USED AS SECTION SCALE ONE INCH 360 FEET OR 840 ACRES OR 5280 FEET  
IF USED AS 1/4" SCALE ONE INCH 400 FEET OR 160 ACRES OR 2640 FEET  
IF USED AS 1/8" SCALE ONE INCH 200 FEET OR 40 ACRES OR 1320 FEET  
IF USED AS 1/16" SCALE ONE INCH 100 FEET OR 10 ACRES OR 660 FEET

YEAR AC.	LAND	BLDG.	BLDG. VALUE	REASON	BY	DATE
1958	1180	1120	1120			
1959	1180	1120	1120			
1960	1180	1120	1120			
1961	1180	1120	1120			
1962	1180	1120	1120			
1963	1180	1120	1120			
1964	1180	1120	1120			
1965	1180	1120	1120			
1966	1180	1120	1120			
1967	1180	1120	1120			
1968	1180	1120	1120			
1969	1180	1120	1120			
1970	1180	1120	1120			
1971	1180	1120	1120			
1972	1180	1120	1120			
1973	1180	1120	1120			
1974	1180	1120	1120			
1975	1180	1120	1120			
1976	1180	1120	1120			
1977	1180	1120	1120			
1978	1180	1120	1120			
1979	1180	1120	1120			
1980	1180	1120	1120			
1981	1180	1120	1120			
1982	1180	1120	1120			
1983	1180	1120	1120			
1984	1180	1120	1120			
1985	1180	1120	1120			
1986	1180	1120	1120			
1987	1180	1120	1120			
1988	1180	1120	1120			
1989	1180	1120	1120			
1990	1180	1120	1120			

RECORD OF ASSESSED VALUE

DISTRICT: ROAD 5

SCHOOL 11

WATER FIRE 4

SEWER 4

HSPIL. ANPL. FEERY

Neto 22229

390

SECTION 1 IMP. OR N. RANGE 7 TAXID NO. 2 Echo Lake Garden Tracts 1st Div. Iss. Co. Rd. 2/1  
 DESCRIPTION: 5/140 of 2nd 47' lots E of Aurora Ave.  
 CODE NO. CC  
 R B  
 PERMIT NO.  
 DATE

3. ADDRESS OF PROPERTY Aurora Ave., N of N 192nd St. 1  
 4. FEE OWNER D. J. WOLFE 11-6-32 CONTRACT PURCHASER  
 5. ARCHITECT K. G. Bell CONTRACTOR  
 6. ORIG. BUILDING COST \$ 112.00 OCCUPIED BY Owner RENTAL PER MONTH \$ ESTIMATED RENTAL PER MONTH \$ 35.  
 7. CONDITION OF EXTERIOR good INTERIOR good FOUNDATION good FLOOR PLAN accept

8. BUILDING  
 1 F.M.L.Y. DWL.  
 2 Sty.  
 10 rooms  
 5 1st floor  
 5 2nd floor  
 INTERIOR WALLS  
 10 plaster  
 FLOORS  
 10 fir  
 FIRE PLACE  
 1-cobble stone  
 INTERIOR TRIM  
 10 fir  
 PLUMBING  
 9 fixtures  
 2 tub leg  
 2 toilet  
 2 basin  
 1 sink  
 1 HW tank  
 1 laundry tr.  
 average

TILE WORK  
 floor-wall-100%  
 kit.dr.board  
 ATTIC  
 none  
 HEATING  
 hot air Fur.  
 stoker  
 1-extra flue  
 Air cond. fan  
 Oil burner  
 BASEMENT  
 full  
 to 1st fl. joist  
 7-ft. concrete fl  
 drain  
 FOUNDATION  
 concrete  
 stone & brick  
 porch con.  
 shingle  
 EXTERIOR WALLS  
 brick & hollow  
 tube.

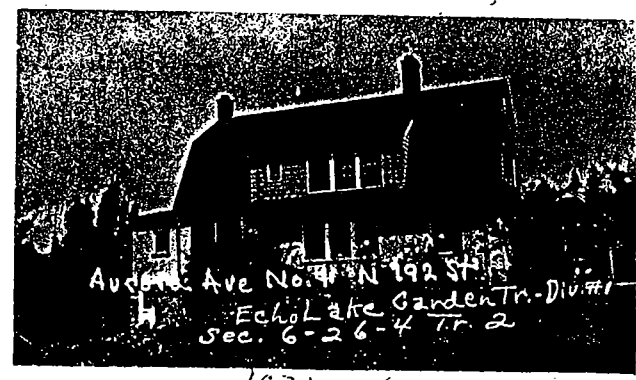
PORCHES  
 1 sty. B.-floor  
 roofed-glasses  
 2 B & con.  
 EXTRA FEATURES  
 1 kitchen butt  
 2 14' Dormers  
 BUILT-INS  
 usual  
 CONSTRUCTION  
 double  
 CEILING HEIGHT  
 7-ft. basm't.  
 8' 1st fl.  
 8' 2nd fl.

9. CORNER JOINTS 22000 DOWN SPOUTS SEWER CONNECTED yes  
 10. FIRST FLOOR JOIST SIZE 2 x 12 AND 16 INCH CENTERS BRIDGED yes  
 11. FIRST FLOOR JOIST SUPPORT COLUMN OR POST SIZE 10 x 10  
 12. CLASS OR GRADE NO. 4 A1 SHAPE NO. 1  
 13. BUILDING FINISHED OR UNFINISHED finished  
 14. DEPRECIATION: CONDITION 3/5 % OBSLSE. % ECON. SUIT. % TOTAL 4/4  
 YEAR BUILT 1924 REMODELED NO EFFECTIVE AGE 18 YRS. FUTURE LIFE 51 YRS.

LAND INFORMATION  
 1. SIZE Irregular-slping. 2. ROAD concrete  
 3. SEWAGE septic tkn. DRAINAGE fair WATER city PUMP  
 4. TREND up 5. DISTRICT med-old 6. USE Res.  
 LAND USE SOIL TYPE CROPS-TIMBER STAND NO. ACRES VALUE-ACRE VALUE

LAND SIZE \_\_\_\_\_ X \_\_\_\_\_ TOTAL NUMBER OF ACRES \_\_\_\_\_ VALUE \$ \_\_\_\_\_

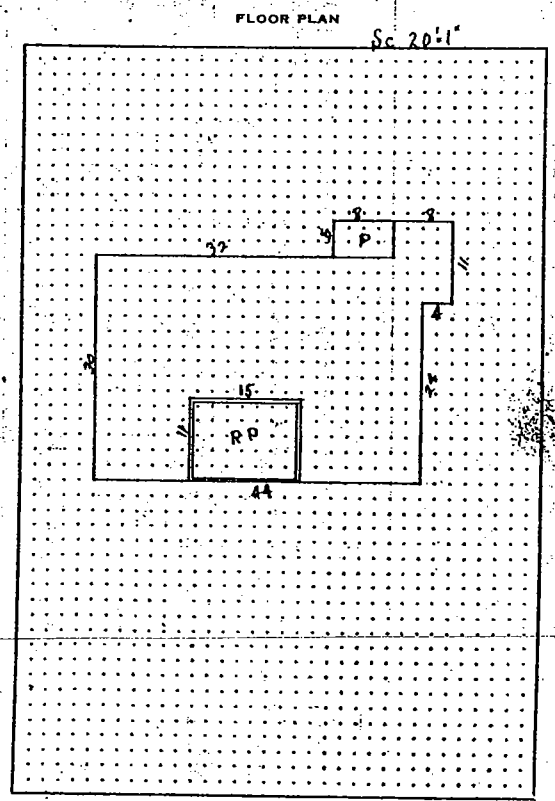
ASSESSED VALUE \$ 2550.  
 REMARKS  
 MAIN BUILDING  
 DIMENSION SQ. FT. AREA  
 30 x 44 1384  
 4 x 11 44  
 PCH. 1 x 15 165 7710-7  
 PCH. 3 x 8 24 2500  
 IMPROVEMENT VALUE 1820. 2300  
 MAIN BUILDING 1820. 2300  
 OTHER BUILDINGS 100.  
 TOTAL 1920. 2300  
 ASSESSED VALUE 50% 960.  
 DATE 1/20/50  
5000 71 575



OTHER BUILDINGS	CONSTRUCTION	FLOOR	ROOF	STY.	DIMENSION	AREA	VALUE
GARAGE 1-car	frame-single	wood	shingle	1	13 x 18	234	\$ 62.
G. shed	" "	dirt	"	1	13 x 20	377	62.
log	" "	con.	"	1	10 x 10	100	54.
							178.

OWNER OR CONTRACT PURCHASER	DATE	FILE NO.	PRICE	MTGE.	STAMP
C. B. McNaughton	1-24-47	2580-446			

REMARKS  
 Supl. "A" 210.  
 "B" 400.





# Shoreline Historic Resource Inventory

## Site Map

HRI # 0297

19414  
A CONDOMINIUM

33

OFFICE

119250

RESTAURANT  
MOTEL  
19280

HOLIDAY RESORT  
& PRAYER PARK  
19274

TRAILER  
PARK

GARDE

327.26  
SEE LARGE  
COMPLEXES

ECHO LAKE  
RAZAS

ECHO LAKE

301.64

ECHO LAKE  
HOP-IN  
MDS

216.60

31.73

8.90

16.51

158.51

51

100

▲  
North  
Scale

0 50 100 200'

