DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No. 14-148576-WG and 14-148578-LO

Project Name/Address: Panasyuk Pier and Boatlift

Planner: Michael Paine

Phone Number: 425-452-2739

Minimum Comment Period: May 18, 2015

Materials included in this Notice:

☐ Blue Bulletin
☒ Checklist
☒ Vicinity Map
☒ Plans
☒ Other: Critical Area Report

OTHERS TO RECEIVE THIS DOCUMENT:
☒ State Department of Fish and Wildlife / Sterwart.Reinbold@dfw.gov; Christa.Heller@dfw.wa.gov;
☒ State Department of Ecology, Shoreline Planner N.W. Region / Jobu461@ecy.wa.gov; sepaunit@ecy.wa.gov
☒ Army Corps of Engineers Susan.M.Powell@nws02.usace.army.mil
☐ Attorney General ecyolyef@atg.wa.gov
☒ Muckleshoot Indian Tribe Karen.Walter@muckleshoot.nsn.us; Fisheries.fileroom@muckleshoot.nsn.us

ENVIRONMENTAL CHECKLIST

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4) Our TTY number is 425-452-4636.

Background Information

Property Owner: **Anatoliy Panasyuk**

Proponent: **Gregory W. Ashley - Ashley Shoreline Design & Permitting**

Contact Person: **Gregory W. Ashley - Ashley Shoreline Design & Permitting**
(If different from the owner. All questions and correspondence will be directed to the individual listed.)

Address: **16412 NE 10th Pl.**
Bellevue, WA 98008-3707
Phone: **(425) 957-9381**

Proposal Title: **Panasyuk pier & boatlift**

Proposed Location: **4131 181st Ave. SE**
(Street address and nearest cross street or intersection) Provide a legal description if available.

Please attach an 8 ½" x 11" vicinity map that accurately locates the proposed site.

Give an accurate, brief description of the proposal's scope and nature.

General description: **Install a Hewitt pre-manufactured freestanding dock 56' in length and covering 257 SF. Install a freestanding portable boatlift.**

1. Acreage of site: **29,915 SF**

2. Number of dwelling units/buildings to be demolished: **None, does not apply**

3. Number of dwelling units/buildings to be constructed: **None, does not apply**

4. Square footage of buildings to be demolished: **None, does not apply**

5. Square footage of buildings to be constructed: **None, does not apply**

6. Quantity of earth movement (in cubic yards): **None, does not apply**

7. Proposed land use: **Private single family residence**

Received
DEC 29 2014
Permit Processing

8. Design features, including building height, number of stories and proposed exterior materials: **Does not apply**

9. Other: **Does not apply**

Estimated date of completion of the proposed timing of phasing: **Construction to be carried out during the timing window of July 16 through Dec. 31**

Do you have any plans for future additions, expansions, or further activity related or connected with this proposal? If yes, explain. **No**

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. **A shoreline planting plan (SPP) and Critical Areas Report prepared by Cedarock Consultants, Inc.**

Do you know whether applications are pending for government approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known? **No**

Please provide one or more of the following exhibits, if applicable to your proposal.
(Please check appropriate box(es) for exhibits submitted with your proposal)

☐ Land Use Reclassification (rezone) Map of existing and proposed zoning.

☐ Preliminary Plat or Planned Unit Development
Preliminary plat map

☐ Clearing & Grading Permit
Plan of existing and proposed grading
Development plans

☐ Building Permit (or Design Review)
Site Plan
Clearing & Grading Plan

☑ Shoreline Management Permit
Site Plan

A - ENVIRONMENTAL ELEMENTS

1. EARTH

a. General description of the site (circle one): flat; rolling; hilly; steep slopes; mountainous; other: _____

b. What is the steepest slope on the site (approximately percent slope)? **< 1%**

c. What general types of soils are found on the site (for example, clay, sand gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.
Sand & gravel

d. Are there surface indicators or history of unstable soils in the immediate vicinity? If so, describe.
No

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
None, does not apply

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
No, does not apply

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
None, does not apply

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
None, does not apply

2. AIR

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.
None, does not apply

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No, does not apply

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
None, does not apply

3. **WATER**

a. Surface

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.
Yes, Lake Sammamish

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.
Yes, install new pier, and install boatlift.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None, does not apply

4) Will the proposal required surface water withdrawals or diversions? Give general description, purpose and approximate quantities if known.
No, does not apply

5) Does the proposal lie within a 100-year flood plain? If so, note location on the site plan.
Yes

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
No, does not apply

b. Ground

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximately quantities if known.
No, does not apply

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemicals, agriculture; etc.).
None, does not apply

3) Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
None, does not apply

c. Water Runoff (including storm water)

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow? Will this water flow into other waters? If so, describe.
None, does not apply

2) Could waste materials enter ground or surface waters? If so, generally describe.
No, does not apply

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
None, does not apply

4. PLANTS

a. Check the types of vegetation found on the site:

☐ **Deciduous tree:** Alder, Maple, Aspen, other

☐ **Evergreen tree:** Fir, Cedar, Pine, other

☐ Shrubs
☑ Grass
☐ Pasture
☐ Crop or grain

☐ **Wet soil plants:** Cattail, Buttercup, Bulrush, Skunk Cabbage, other

☐ **Water plants:** Water Lily, Eelgrass, Milfoil, other

☐ Other types of vegetation

b. What kind and amount of vegetation will be removed or altered?
None

c. List threatened or endangered species known to be on or near the site.
Salmon

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Native vegetation to be planted along the shore. Scope of planting to be determined by Cedarock Consultants, Inc.

5. ANIMALS

a. Check or circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

☑ **Birds:** Hawk, Heron, Eagle, Songbirds, other:

☐ **Mammals:** Deer, Bear, Elk, Beaver, other:

☑ **Fish:** Bass, Salmon, Trout, Herring, Shellfish, other:

b. List any threatened or endangered species known to be on or near the site.
Salmon

c. Is the site part of a migration route? If so, explain
Possibly a Salmon outmigration rout

d. Proposed measures to preserve or enhance wildlife, if any:
Adhere to all regulations and guidelines

6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
None, does not apply

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No, does not apply

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None, does not apply

7. ENVIRONMENTAL HEALTH

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.
No
1) Describe special emergency services that might be required.

None, does not apply

2) Proposed measures to reduce or control environmental health hazards, if any:
None, does not apply

b. <u>Noise</u>

1) What type of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None, does not apply

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
Assembly of dock and boatlift, Monday through Friday, 8:00 A.M. to 4:30 P.M.

3) Proposed measures to reduce or control noise impacts, if any:
Limit time of assembly to M-F, 8:00 A.M to 4:30 P.M.

8. <u>LAND USE AND SHORELINE USE</u>

a. What is the current use of the site and adjacent properties?
Private single-family residence

b. Has the site been used for agriculture? If so, describe.
No

c. Describe any structures on the site.
Private single-family residence

d. Will any structures be demolished? If so, what?
No

e. What is the current zoning designation of the site?
R-5

f. What is the current comprehensive plan designation of the site?

g. If applicable, what is the current Shoreline Master Program designation of the site (check with City Planning staff)?

h. Has any part of the site been classified an "environmentally sensitive" area? If so, specify.
Yes, the shoreline

i. Approximately how many people would reside or work in the completed project?
None, does not apply

j. Approximately how many people would the completed project displace?
None, does not apply

k. Proposed measures to avoid or reduce displacement impacts, if any?
None, does not apply

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
Adhere to all regulations and guidelines

9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
None, does not apply

b. Approximately how may units, if any, would be eliminated? Indicate whether high-, middle-, or low-income housing.
None, does not apply

c. Proposed measures to reduce or control housing impacts, if any:
None, does not apply

10. AESTHETICS

a. What is the tallest height of any proposed structures(s), not including antenna; what is the principal exterior building material(s) proposed?
Approximately 36" above the OHWM, aluminum

b. What views in the immediate vicinity would be altered or obstructed?
None

c. Proposed measures to reduce or control aesthetic impacts, if any:
None

11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None, does not apply

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No, does not apply

c. What existing off-site sources of light or glare may affect your proposal?
None, does not apply

d. Proposed measures to reduce or control light and glare impacts, if any:
None, does not apply

12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?
Water sports

b. Would the proposed project displace any existing recreational uses? If so, describe.
No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project of applicant, if any:
None

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity, which might be needed.
None, does not apply

SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Date Submitted: 12/29/2014

Ashley Shoreline Design & Permitting

16412 NE 10th Place
Bellevue, Washington 98008-3707
Phone: (425) 957-9381
greg@shoreline-permitting.com

DRAWING BY: Gregory W. Ashley

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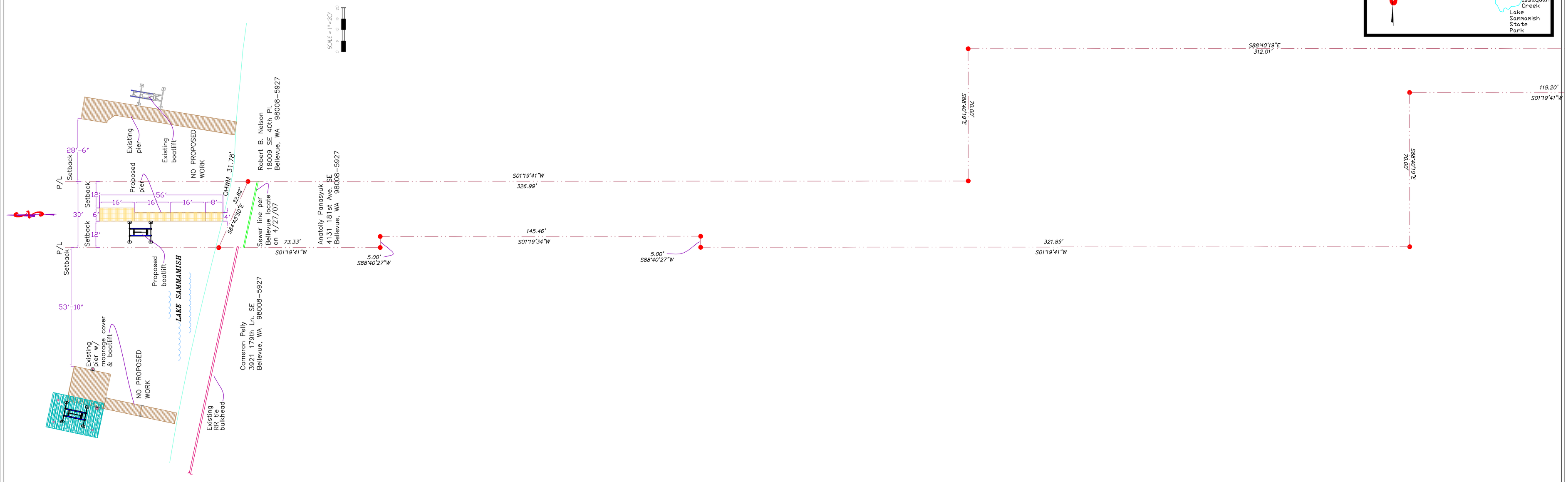

SHORELINE PROJECT FOR :	**Anatoliy Panasyuk** **4131 181st Ave. SE** **Bellevue, WA 98008-5927**	**LOCATION: Lake Sammamish** **DATUM: NAVD 88** **LAT: 47° 37' 31" North** **LONG: -122° 05' 20" West** **LENGTH FROM OHWM: 70'** **SQ. FT. : 416**	**PROJECT DESCRIPTION: Install premanufactured free standing pier and boatlift.**
PAGE: 2 of 4			**DATE: 11/2/2014**

Ashley Shoreline Design & Permitting

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Bellevue, Washington 98008-3707
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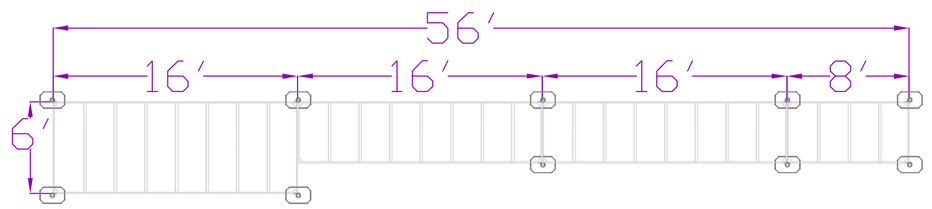
(TYP. DETAIL)



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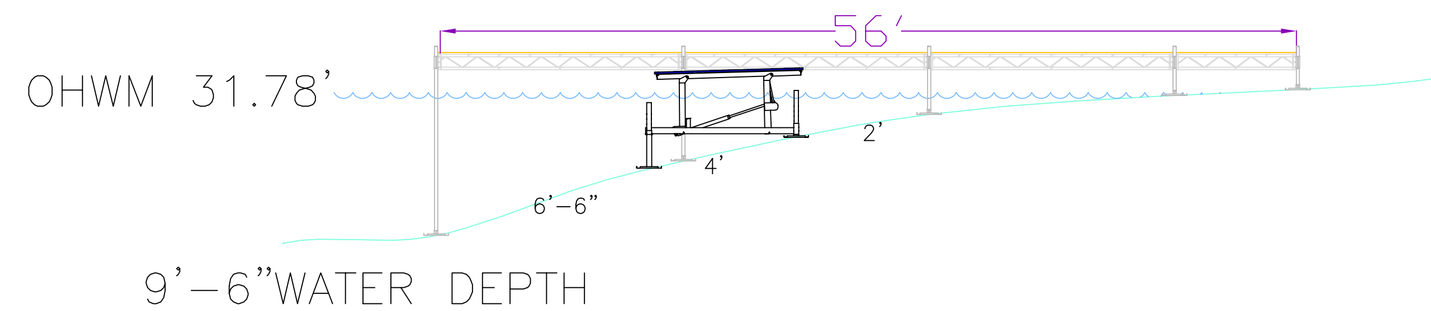

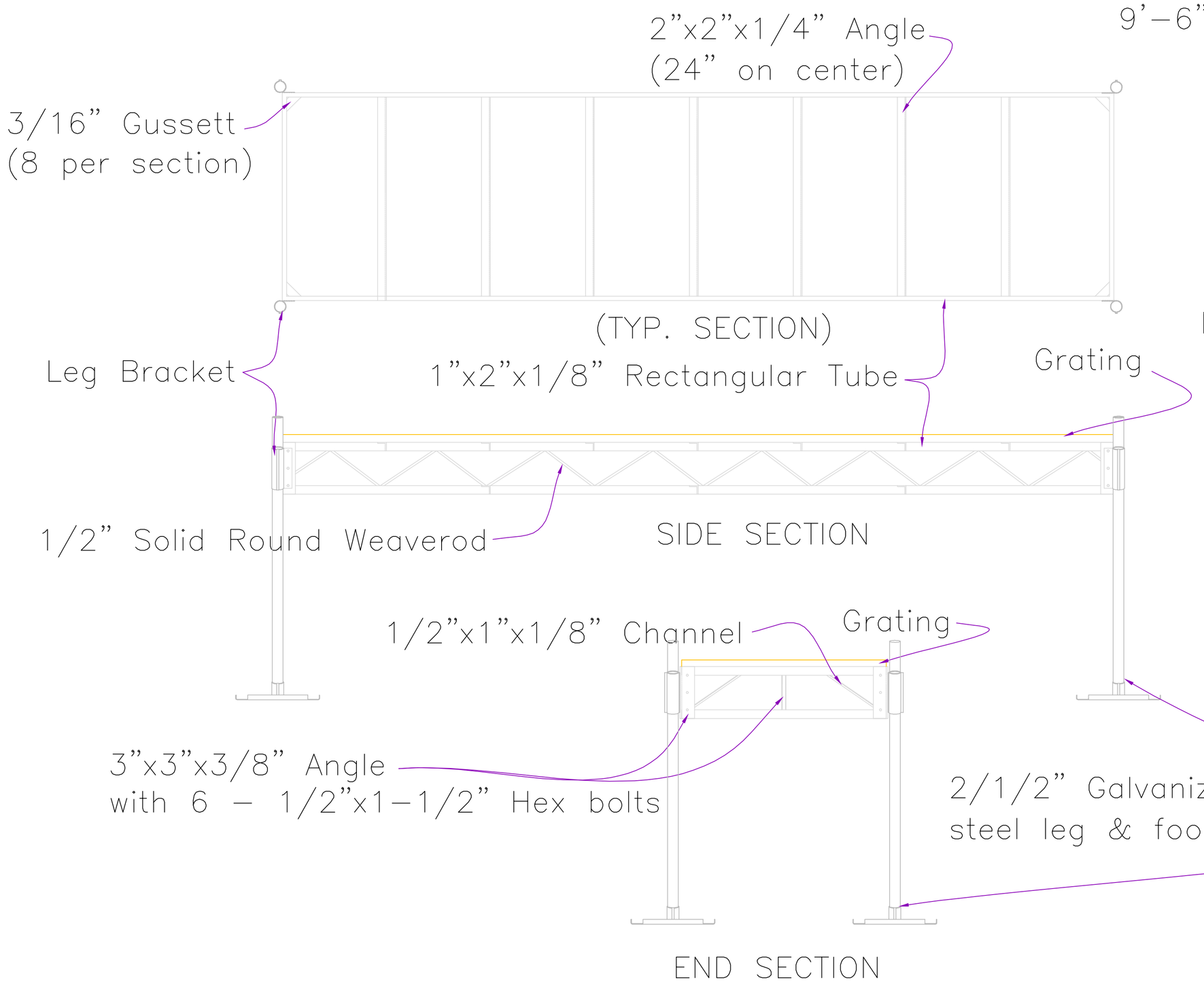

THE DOCK IS A HEWITT PRE-MANUFACTURED ALUMINUM TRUSS STRUCTURE
THE DOCK IS SUPPORTED WITH 2 1/2" GALVANIZED STEEL LEGS AND FOOT PADS

NOTES:
ALL LEGS & FOOT PADS ARE GALVANIZED STEEL
DECKING ATTACHED TO ALUMINUM TRUSS DOCK WITH S.S. SCREWS
DECKING TO BE THRU-FLOW GRATING
ALL HARDWARE IS EITHER GALVANIZED STEEL OR MARINE GRADE ALUMINUM

SHORELINE PROJECT FOR : Anatoliy Panasyuk 4131 181st Ave. SE Bellevue, WA 98008-5927 PAGE: 3 of 4	LOCATION: Lake Sammamish DATUM: NAVD 88 LAT: 47° 37' 31" North LONG: -122° 05' 20" West LENGTH FROM OHWM: 70' SQ. FT. : 416	PROJECT DESCRIPTION: Install premanufactured free standing pier and boatlift. DATE: 11/2/2014

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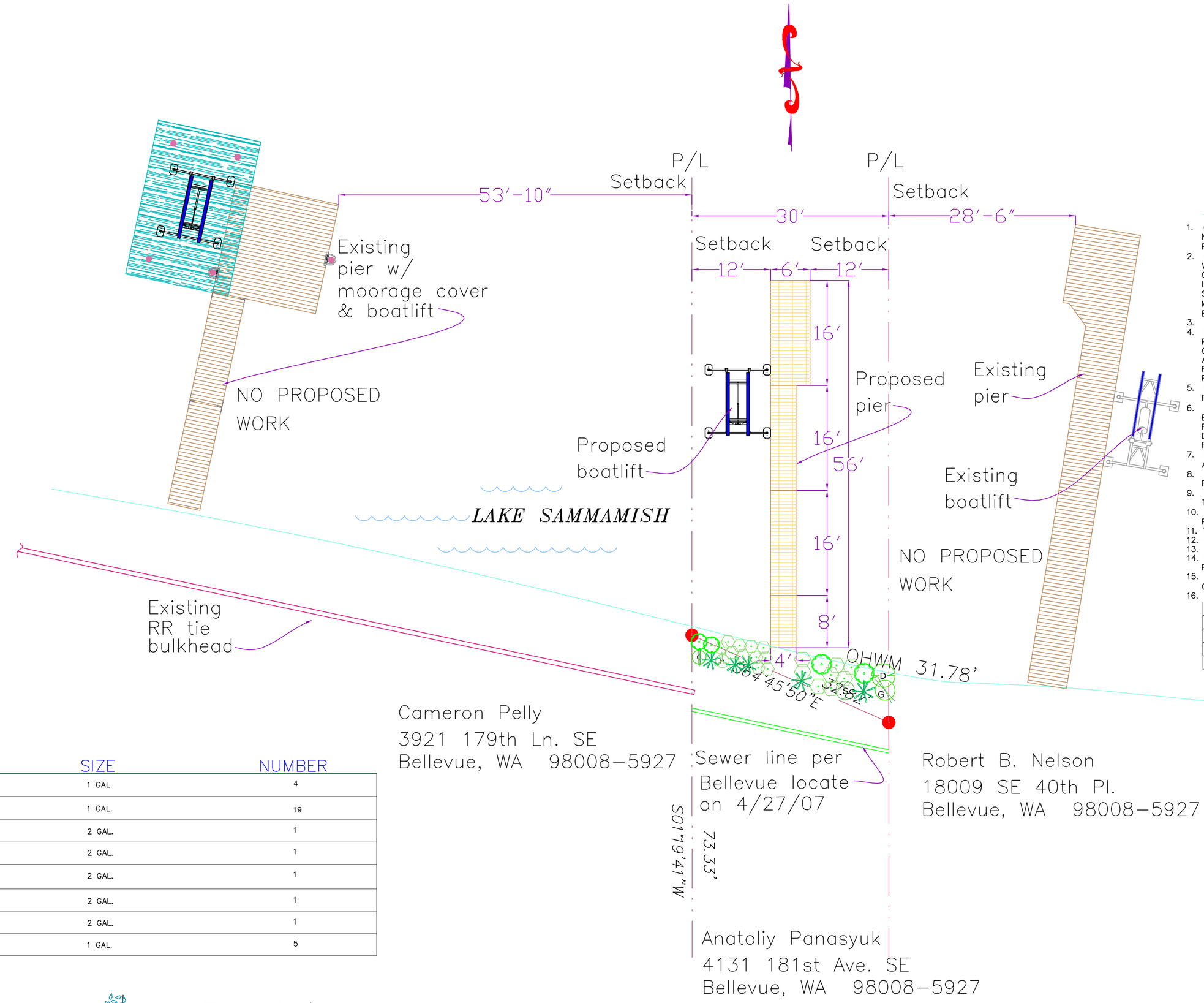


SPECIFICATIONS

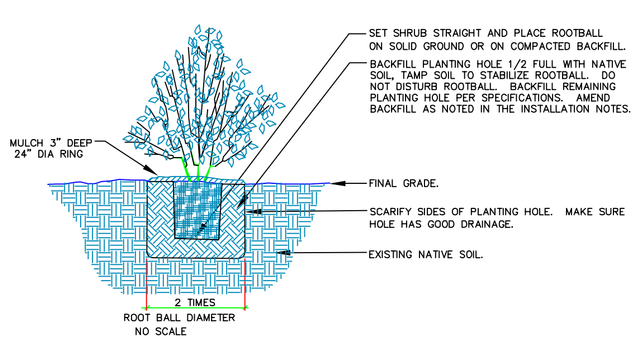
1. CONTRACTOR INFORMATION. WHEN IT IS AVAILABLE, CONTACT INFORMATION SHALL BE PROVIDED TO THE CITY OF BELLEVUE THAT INCLUDES NAMES, ADDRESSES AND PHONE NUMBERS OF PERSONS/FIRMS THAT WILL BE RESPONSIBLE FOR INSTALLING REQUIRED PLANTS AND PERFORMING REQUIRED MAINTENANCE.
2. CONTRACTOR'S QUALIFICATIONS. ALL WORK SHALL BE PERFORMED BY A LICENSED LANDSCAPE CONTRACTOR REGISTERED IN THE STATE OF WASHINGTON. CONTRACTOR MUST BE EXPERIENCED IN MITIGATION AND RESTORATION WORK. THE CONTRACTOR SHALL PROVIDE THAT THERE IS ONE PERSON ON THE SITE AT ALL TIMES DURING WORK AND INSTALLATION WHO IS THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE BEST METHODS FOR THEIR INSTALLATION, AND WHO SHALL DIRECT ALL WORK BEING PERFORMED UNDER THESE SPECIFICATIONS. THIS PERSON SHALL HAVE A MINIMUM OF FIVE (5) YEARS EXPERIENCE INSTALLING NATIVE PLANT MATERIALS FOR WETLAND MITIGATION OR RESTORATION PROJECTS, UNLESS OTHERWISE ALLOWED BY THE LANDSCAPE DESIGNER, WETLAND BIOLOGIST AND/OR THE CITY OF BELLEVUE.
3. ALL PLANTS SHOULD BE INSTALLED BETWEEN DECEMBER 1ST AND MARCH 15TH UNLESS A TEMPORARY IRRIGATION SYSTEM IS INSTALLED.
4. INTERMEDIATE INSPECTIONS. ALL PLANTS SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE DESIGNER AND/OR WETLAND BIOLOGIST PRIOR TO INSTALLATION. CONDITION OF ROOTS OF A RANDOM SAMPLE OF PLANTS WILL BE INSPECTED, AS WELL AS ALL ABOVE GROUND GROWTH ON ALL PLANTS. ROOTS OF ANY BARE ROOT PLANTS, IF PERMITTED FOR USE, WILL BE INSPECTED. PLANT MATERIAL MAY BE APPROVED AT THE SOURCE, AT THE DISCRETION OF THE LANDSCAPE DESIGNER AND THE WETLAND BIOLOGIST, BUT ALL MATERIAL MUST BE RE-INSPECTED AND APPROVED ON THE SITE PRIOR TO INSTALLATION. PLANT LOCATIONS SHALL ALSO BE INSPECTED AND APPROVED PRIOR TO PLANTING.
5. PRIOR TO INSTALLATION OF PLANT MATERIAL, A LINE OF STRAW BALES STAKED WITH 2"X2" STAKES ALONG THE ENTIRE LENGTH OF THE PLANTING AREA OR SILT FENCE (PER CITY OF BELLEVUE STANDARDS) SHALL BE INSTALLED LAKESIDE OF THE OHWL.
6. THE PLANTING AREAS WILL BE LAID OUT BASED ON THE PLANTING PLAN (10' WIDE STRIP FROM THE OHWL OF THE LAKE), AND PLANTS SHALL BE GRUBBED FROM THE PLANTING AREA WITH THE EXCEPTION OF NATIVE WOODY VEGETATION. CARE SHOULD BE TAKEN TO ENSURE COMPLETE REMOVAL OF ROOTS OF ALL HIMALAYAN BLACKBERRY, ENGLISH IVY OR OTHER INVASIVE PLANT SPECIES, CONCRETE OR OTHER NON-ORGANIC DEBRIS AND ORNAMENTAL PLANTINGS LOCATED IN THE PLANTING AREAS. ALL EXCAVATED MATERIAL SHALL BE EXPORTED OFFSITE PRIOR TO PLANTING.
7. PRIOR TO PLANTING, A MIN. 3" OF PGM (PACIFIC GARDEN MULCH), SHALL BE INSTALLED IN THE PLANTING BEDS TO PRE-CLEARING GRADES AND TILLED INTO THE TOP 6" OF NATIVE SOIL AFTER ORNAMENTAL PLANT, LAWN AND CONCRETE REMOVAL.
8. ALL PLANTS SHALL BE PIT-PLANTED IN PLANTING PITS EXCAVATED 2X THE DIAMETER OF THE PLANT AND BACKFILL WITH EXCAVATED MATERIAL FROM THE PLANTING PIT.
9. PLANTS SHALL BE INSTALLED 2" HIGH AND SURFACED MULCHED TO A DEPTH OF 2" WITH MEDIUM-COURSE BARK MULCH PLACED CONTINUOUSLY THROUGHOUT THE PLANTING BED TO MATCH OTHER LANDSCAPE BEDS.
10. ALL PLANTS SHALL BE NURSERY GROWN (IN WESTERN WA OR OR) FOR AT LEAST 1 YEAR FROM PURCHASE DATE, FREE FROM DISEASE OR PESTS, WELL-ROOTED, BUT NOT ROOT-BOUND AND TRUE TO SPECIES.
11. TREES SHALL BE SINGLE STAKED WITH A BAMBOO STAKE AS NECESSARY TO PREVENT LEANING.
12. PLANT LAYOUT SHALL BE APPROVED BY AQA PRIOR TO INSTALLATION AND APPROVED UPON COMPLETION OF PLANTING.
13. UPON COMPLETION OF PLANTING, ALL PLANTS SHALL BE THOROUGHLY WATERED.
14. MAINTENANCE SHALL BE REQUIRED IN ACCORDANCE WITH THE CITY OF BELLEVUE SENSITIVE AREAS MITIGATION GUIDELINES AND APPROVED PLANS.
15. ALL PLANTS SHALL BE HAND-WATERED OR IRRIGATED VIA A TEMPORARY IRRIGATION SYSTEM DURING THE FIRST TWO DRY SEASONS AT A RATE OF ½" OF FLOW TWICE WEEKLY BETWEEN JUNE 15 – OCTOBER 31. FLOW SHOULD ENSURE COMPLETE SATURATION OF THE ROOT ZONE.
16. MAINTENANCE SHALL BE IMPLEMENTED ON A REGULAR BASIS ACCORDING TO THE SCHEDULE BELOW.

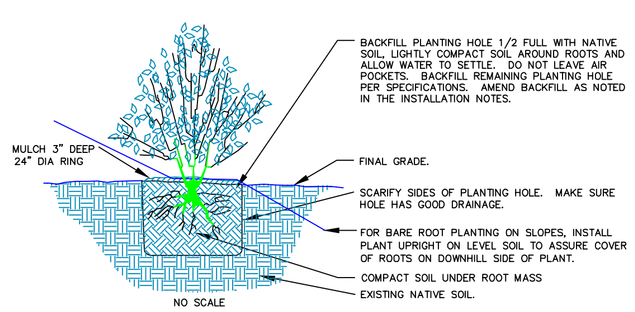
ANNUAL MAINTENANCE SCHEDULE

MAINTENANCE ITEM	J	F	M	A	M	J	J	A	S	O	N	D
WEED CONTROL			1	1	1	1	1	1	1	1	1	
GENERAL MAINT.	1	1	1	1	1	1	1	1	1	1	1	1

1–8 = NUMBER OF TIMES TASK SHALL BE PERFORMED PER MONTH.

PLANT NAME AND SPECIES		SIZE	NUMBER
	SMALL FRUITED BULLRUSH (Scirpus microcarpus)	1 GAL.	4
	SLOUGH SEDGE (Carex abnupta)	1 GAL.	19
G	RED HUCKLEBERRY (Vaccinium parvifolium)	2 GAL.	1
Ꝑ	FLOWERING CURRENT (Ribes sanguineum)	2 GAL.	1
S	SNOWBERRY (Symphoricarpos alabus)	2 GAL.	1
H	BALD HIP ROSE (Rosa gymnocarpa)	2 GAL.	1
D	RED TWIG DOGWOOD (Cornus sericea)	2 GAL.	1
	DEER FERN (Blechnum spicant)	1 GAL.	5





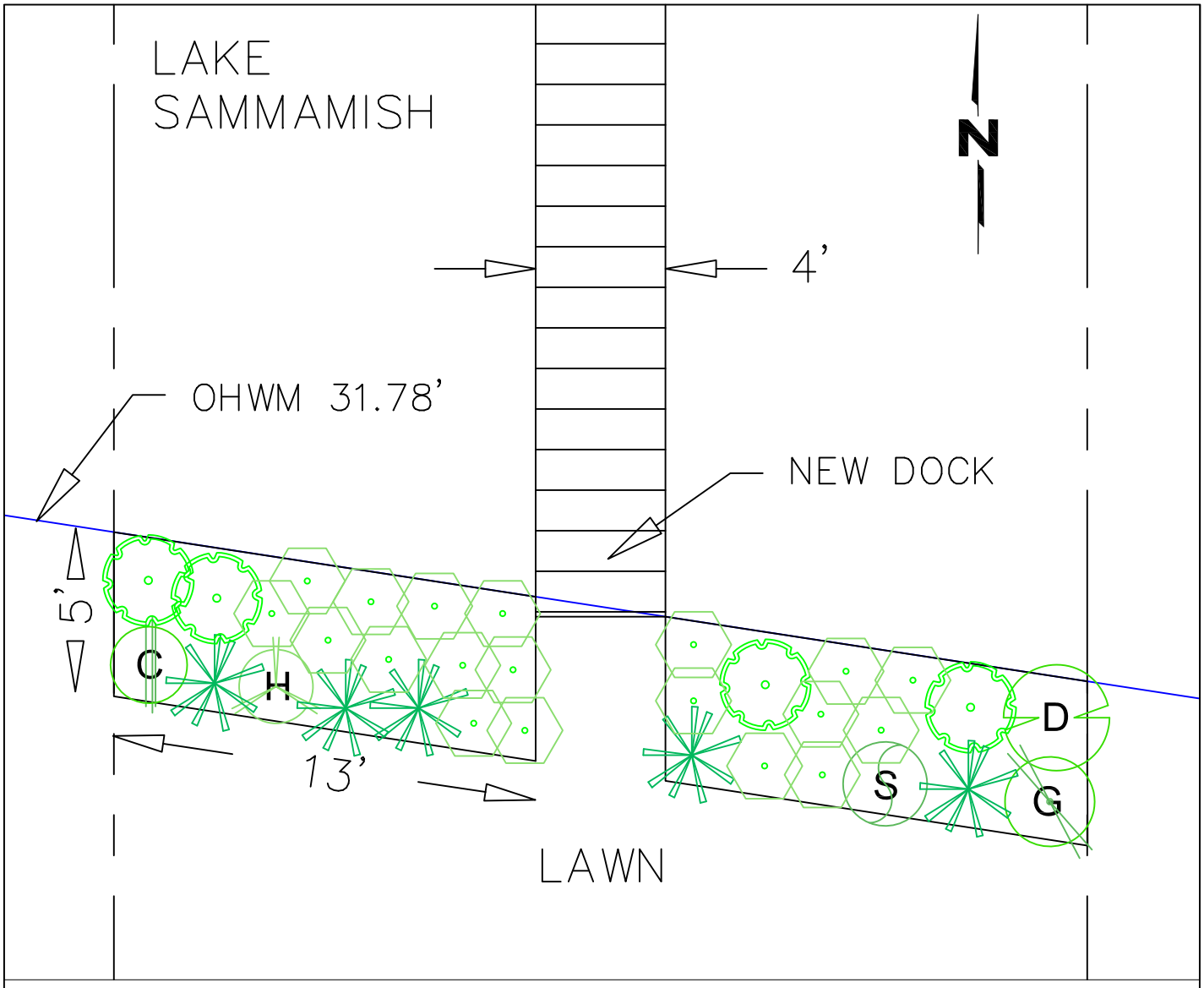
SHORELINE PROJECT FOR : Anatoliy Panasyuk
4131 181st Ave. SE
Bellevue, WA 98008-5927

PAGE: 4 of 4

LOCATION: Lake Sammamish **DATUM:** NAVD 88
LAT: 47° 37' 31" North
LONG: 122° 05' 20" West
LENGTH FROM OHWM: 70' **SQ. FT. :** 416

PROJECT DESCRIPTION: Install premanufactured freestanding pier and boatlift.

DATE: 11/2/2014



PLANT NAME AND SPECIES	SIZE	NUMBER
SMALL FRUITED BULRUSH (Scirpus microcarpus)	1-GAL	4
SLOUGH SEDGE (Carex obnupta)	1-GAL	19
G RED HUCKLEBERRY Vaccinium parvifolium)	2-GAL	1
C FLOWERING CURRANT (Ribes sanguineum)	2-GAL	1
S SNOWBERRY (Symphoricarpos albus)	2-GAL	1
H BALD HIP ROSE (Rosa gymnocarpa)	2-GAL	1
D RED TWIG DOGWOOD (Cornus sericea)	2-GAL	1
DEER FERN (Blechnum spicant)	1-GAL	5

A total of 130 square feet of area to be planted in two 5' x 13' areas located immediately adjacent to the OHW. The planting areas currently consist of lawn and miscellaneous native and non-native shrubs. All non-native species will be eradicated,

A total of 33 shrubs/groundcovers (1 plant/4.0 square feet) shall be planted Existing native trees in the shoreline shall be preserved. See Sheet 2 for planting details.

TSENG & PANASYUK MITIGATION PLANTING PLAN	CEDAROCK CONSULTANTS, INC. 19609 244th Avenue NE Woodinville, WA 98077 (425) 788-0961	4131 181st Ave SE Bellevue WA 98008
		1" = 5' | SHEET 1 OF 2

PLANT INSTALLATION

1. Plant materials shall be nursery grown in the Puget Sound area. Plants shall be normal in pattern of growth, healthy, well–branched, vigorous, with well–developed root systems, and free of pests and diseases. Damaged, diseased, pest–infested, scraped, bruised, dried out, burned, broken, or defective plants will be rejected.
2. If selected species are not available, then similar species may be substituted with approval from owner and City of Bellevue.
3. Planting shall occur during the cool season (September 15 through March 15).
4. Landscaper shall examine soils in the area to determine suitability for selected plants. New topsoil or compost amendment shall be added to a depth of 12" where necessary to support plants.
5. Plant all groundcover plants approximately 18–inches on center.
6. Immediately after planting, plants shall be watered to saturation.
7. Actual planting locations shall be field determined at time of planting by landscape architect or biologist.
8. Provide good quality landscape mulch around all shrubs. This can be omitted around grasses.

LANDSCAPING MAINTENANCE

1. Controlling any non–native species and re–establishing native vegetation are the primary goals of this maintenance plan. Activities required to maintain new plantings include initial watering of the new plants, and periodic removal of non–native vegetation (weeding) within the planting area.
2. New plantings shall be watered from May through mid–October during the first season. A temporary irrigation system is allowed. A potable water source is available for this use.
3. Due to the aggressively invasive habit of many non–native species around Lake Sammamish, and the existence of nearby seed sources, control efforts shall be completed for five years following initial plant installation. Establishment of native plantings over the five year time period will create a well established native habitat lessening the chance for non–native vegetation invasion.
4. The control of invasive weeds (competing grasses and herbs) shall be mechanically provided throughout the planting area at a minimum of twice per year, or more should additional weeding be deemed necessary. The optimal season for weed control occurs in April thru September. The use of herbicides and pesticides after new planting operations is strictly prohibited unless given written permission by the City of Bellevue. All work shall be performed by hand with the lightest possible equipment.

MONITORING

1) Compliance monitoring consists of evaluating the plants and shoreline planting area immediately after plant installation. The objective is to verify that all design features, as agreed to in the plans, have been correctly and fully implemented, and that any changes made in the field are consistent with the intent of the design. Evaluation of the planting areas after restoration will be done by the homeowner. A brief compliance report will be prepared describing final plant counts and noting any substitutions or movement of plants when compared to the design. Rationale for changes shall be provided. Three photo points will be established giving complete coverage of the buffer area.

2) Long Term Monitoring – New plantings will be monitored in the summer once a year for a five year period. Monitoring will be conducted by the homeowner to quantify the survival, relative health and growth of plant material. An annual monitoring report submitted to the City following each years monitoring visit will describe and quantify the status of the mitigation and provide the three photos from the same locations as the compliance report.

Vegetation monitoring will consist of plant inspection to determine the health and vigor of the installation. All planted material in the buffer will be inspected during each monitoring visit to determine the level of survival of the installation. Each shrub and tree will be rated either as dead, dying, or healthy. Dead or dying material will be replaced the following fall unless plant crowding is believed to be a problem. Plant species substitutions may be made if site conditions are believed responsible for plant mortality. Replacement plants must be approved by the City. Volunteer native, non–invasive species will be included as acceptable components of the mitigation project. Ground covers will be rated as percent ground coverage for each of the major areas covered with these species.

At least three photo points will be established giving complete coverage of the buffer area. Photos will be taken at each point during every monitoring visit and submitted as part of the annual monitoring report.

PERFORMANCE STANDARDS

Year 1 (from date of plant installation)

- 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100% of original plantings
- Less than 10% coverage of invasive plants in planting area.

Year 2 (from date of plant installation)

- At least 90% survival of all installed material
- Less than 10% coverage of planting area by invasive species or non–native/ornamental vegetation.

Year 3, 4, & 5 (from date of plant installation)

- At least 85% survival of all installed material
- At least 35% (Yr3), 50% (Yr4), 70% (Yr5) coverage of the planting area by native plants in each year respectively.
- Less than 10% coverage by invasive species or non–native/ornamental vegetation.

TSENG & PANASYUK MITIGATION PLANTING PLAN	CEDAROCK CONSULTANTS, INC. 19609 244th Avenue NE Woodinville, WA 98077 (425) 788-0961	4131 181st Ave SE Bellevue WA 98008
		NTS — SHEET 2 OF 2

CRITICAL AREAS REPORT
SHORELINE FUNCTIONS EVALUATION
MITIGATION AND MONITORING REPORT

TSENG AND PANASYUK NEW PRIVATE DOCK

4131 181st Ave SE
Bellevue Washington 98008

Prepared by:
Cedarock Consultants, Inc.
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Prepared for:
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4131 181st Ave SE
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December 1, 2014

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1.0 INTRODUCTION

1.1 Project Description

A new 256 sq.ft. dock and associated boat lift will be installed along the west side of Lake Sammamish at 4131 181st Ave SE in Bellevue. The pier will be free-standing (no pile driving). A total of 10 2.5-inch steel legs will support the pier using small foot pads resting on the lake bottom. The pre-fabricated dock may be delivered via barge or by truck. It will be assembled and set in place. One boat lift will be attached. The boat lift will be supported by 4 additional 4-inch steel legs resting on foot pads. A total of 130 sq.ft. of native trees, shrubs, and groundcovers will be added as mitigation landward of the ordinary high water mark in an area of the existing beach currently covered with lawn and other non-native species. No other construction or excavation is required anywhere on the site.

Development standards for docks in Lake Sammamish are covered under LUC 20.25E.080.N.1.b. The proposed dock meets all required standards except the following:

1. LUC 20.25E.080.N.1.b.iv.3.a. *Ells are allowed only over water with depths of nine feet or greater at the landward end of the ell.* The natural slope of the lake bed in this location would require the dock be extended another 16 feet to meet the code requirement. This would require two additional legs (likely by driving pile) and adding 64 sq.ft. of area to the dock. To minimize impacts, the applicant has opted for a smaller dock with a smaller than allowed, fully grated ell.
2. LUC 20.25E.080.N.1.b.v. *The first (nearest shore) piling shall be steel, four-inch piling and at least 18 feet waterward of the ordinary high water mark*. Under the proposed action, no onshore structures will be provided with which to attach the dock. To better stabilize the dock, the first set of legs will be placed only eight feet waterward of the ordinary high water mark. To reduce impacts, the legs will be 2.5-inch diameter rather than the 4-inch diameter that is allowed.
3. LUC 20.25E.080.N.1.b.v. *Piling sets beyond the first are not required to be steel, shall be spaced at least 18 feet apart and shall not be greater than 12 inches in diameter.* Under the proposed action, subsequent support legs will only be 16 feet apart rather than the 18-feet required by code. This spacing is structurally required for the small legs to support the relatively lightweight dock that is shorter and smaller than allowed by code.
4. LUC 20.25E.080.N.1.b.vi.3. ...*the applicant shall plant emergent vegetation (if site-appropriate) and a buffer of vegetation a minimum of 10 feet wide along the entire length of the lot immediately landward of ordinary high water mark.* Project mitigation is provided primarily via avoidance of impacts by constructing a new dock that is substantially smaller than allowed under the code, smaller than docks enjoyed on neighboring lots, without driven pile, and without upland disturbance. Planting, to include emergent vegetation, is proposed over only a 5-foot width landward of the ordinary high water mark.

1.2 Purpose of this Report

This report was prepared for following purposes:

1. To evaluate environmental effects of the proposed dock on environmental functions within the Lake Sammamish Shoreline environment;
2. To evaluate environmental effects of the proposed redevelopment on Critical Areas, and;
3. To describe proposed mitigation and monitoring for the new dock.

1.3 Report Author

This report was prepared by Carl Hadley, a professional fisheries biologist with over 25 years of experience in western Washington.

2.0 EXISTING CONDITIONS

This section provides a description of shoreline habitat and critical areas on and within 100-feet of the proposed dock area under existing conditions. Critical areas within 100-feet of the work area include Lake Sammamish, the lake's riparian buffer, and habitat associated with species of local, state, and federal importance (Figure 1). Adjoining properties include similar critical areas.

2.1 Lake Sammamish

A survey of Lake Sammamish in the vicinity of the work area survey was conducted on the morning of September 17, 2014 by a professional biologist. The Tseng and Panasyuk property and adjoining properties are highly modified including houses, docks, slope modifications and landscaping (Figure 1). The properties have low banks and gradual slopes leading away from the water. Significant retaining walls and other bank protection measures are generally absent in this area. The shoreline is characterized by a sand and gravel beach to above OHW (Figure 2). Lawns in the area come down to the beach where a short drop averaging about a foot is typically present. Minor armoring is present at the edge of most of the lawns.

Lake Sammamish is a shoreline of the state (classified as a Type S water under the Bellevue land use code LUC 20.25H.075.B.1). The lake in this area consists of open water that continues uninterrupted offshore for a half mile and more. The sand dominated substrate drops off slowly to about 9 feet within 50 feet from shore. The north-facing property is not located in an area subject to high wave action during storm events. High water occasionally reaches up to the lawn during winter and minor erosion has been reported as an ongoing concern.

There is no retaining wall on this property and bank protection measures are minor (Figure 2). A few small rounded river rocks were used to fill a hole where erosion started eating at the lawn, but the lawn has generally been adequate to protect the bank. Some weedy grasses, yellow iris and small forbs are located below OHW. The remainder of the Lake Sammamish

buffer upland of the beach consists of a lawn (Figure 2) and a small informal patio area. The narrow lawn extends from the beach up about 250-feet from OHW.

Lake Sammamish has documented fall Chinook, coho, sockeye, and winter steelhead presence. Resident cutthroat trout and various warmwater fish species are also known to use Lake Sammamish year-round. Historic sockeye beach spawning has been reported in this area. No other species have been reported to spawn within or near the project site. Adult salmon migrate through Lake Sammamish to spawning habitat in Issaquah Creek and other tributaries feeding the lake. Juvenile salmon migrate past the site on their journey to Puget Sound. Chinook and steelhead are protected under the federal Endangered Species Act.

Figure 1. Tseng and Panasyuk property on Lake Sammamish.

Figure 2. Shoreline conditions in September 2014 looking east (left) and north (right).

2.2 Streams

A small drainage discharges to Lake Sammamish approximately 260 feet to the west. The drainage appears to have a very limited contributing basin and little is known about it. No watercourse is mapped on any City of Bellevue[1], County, or state databases in this area.

2.3 Wetlands

A cursory examination of the property and a review of public records found no evidence of wetlands on the site. No seeps or wetland plants were noted.

2.4 Geologic Hazard Areas

The property is located on a north facing slope near Lake Sammamish. Starting at OHW, the ground has an average of about a 5 percent slope for the first 50-feet (Figure 2). It then gets somewhat steeper with an average of about 15-percent for the first 200-feet. No steep or unstable areas were noted.

2.5 Species of Local Importance

The wildlife habitat review consisted of a site-specific survey and consultation with the Washington Department of Fish and Wildlife database[2]. The site and surrounding lands have been developed mostly as high-density single-unit residential housing. Although some suitable wildlife habitat for terrestrial and avian species is found in the area, it has all been significantly modified by past clearing, fragmentation, and introduction of non-native landscaping species (e.g. English ivy). Species that may be expected to be found intermittently on this site are deer, coyote, Douglas and eastern grey squirrels, other assorted rodent species, raptors, woodpeckers, and song birds. There are many moderate to large conifer and deciduous trees suitable for red-tailed hawk or owl perching on and near the property. All of these trees are

[1] City of Bellevue Critical Areas, South Sammamish Basin. July 2009.
[2] Washington Department of Fish and Wildlife. 2014. Priority habitat and species map.

located more than 50-feet from the proposed dock location. No nesting activity by sensitive species is known to have occurred in the recent past. Larger trees in the area may provide short-term perching sites for bald eagles, but none of these are known to be critical nesting or roosting habitat sites (WDFW 2014). No terrestrial wildlife species listed by the U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, King County, or City of Bellevue as threatened, endangered, sensitive, critical, candidate or of local importance (LUC 20.25H.150.A) are expected to utilize habitats found in the area of the new dock.

Chinook and coho salmon are found in Lake Sammamish. Additional description of aquatic species and habitat is provided in Section 2.1.

2.6 Flood Hazard Areas

Land subject to a one-hundred-year flood is present on the property below elevation 36.1 feet. This includes the entire area in which the dock will be located.

3.0 EFFECTS OF THE PROPOSED ACTION ON SHORELINE FUNCTIONS

The effect of the proposed dock on shoreline ecological functions is discussed in this section. Standard shoreline ecological functions include water quality improvements, bank protection, organic material source, and wildlife habitat. Each of these functions is reviewed below for both the pre- and post-redevelopment condition.

In shoreline areas the standard for protection is “no net loss”. No net loss means that, following an action, shoreline ecological functions necessary to sustain shoreline natural resources are equivalent to or greater than ecological functions immediately prior to the action. As noted in Ecology guidelines for the Shoreline Management Act, the “no net loss” standard focuses on shoreline ecological functions “as they currently exist”[3]. In this case “as they currently exist” refers to the conditions with the existing beach, landscaped yard, patio, and lack of native vegetation anywhere within 100 feet of Lake Sammamish. No net loss does not compare to theoretical, perfect, or undisturbed conditions as may have occurred before the area was developed.

Shoreline habitat in its natural condition performs many functions essential to fish survival and productivity. Vegetation in riparian areas can provide shade and helps maintain cool water temperatures needed by most fish native to the Pacific Northwest. Plant roots stabilize banks, help control erosion and sedimentation, and can offer refuge habitat for juvenile fish. Vegetation creates overhanging cover for fish. Where present, trees and shrubs contribute leaves, twigs, and insects to waterbodies, thereby providing basic food and nutrients that support fish and aquatic wildlife. Large trees that fall can create refuge habitat needed by small fish for cover and protection from predators. Riparian vegetation, litter layers, and soils filter

[3] *See* WAC 173-26-201(2)(c) (no net loss focuses on sustaining “existing shoreline natural resources” and protecting shoreline resources “as they currently exist”).

incoming sediments and pollutants, thereby assisting in the maintenance of high water quality needed for healthy fish populations[4].

Primary ecological functions provided within the Lake Sammamish shoreline on the project site are described below along with an evaluation of the project impact. Shoreline functions and values are based on WDFW guidelines[5] and other best available science[6]. The discussion is summarized in Table 1.

Existing conditions on the subject property consist of a low-slope sand-dominated beach (Figure 2), and a moderately sloped shoreline covered almost entirely with residential landscaping and minor hardscaping. There are no large trees on the site and no native trees or shrubs are present within 50 feet of the lake on the project site. Vegetation near the shoreline consists of exotic annual and perennial grasses and forbs, the extent of which varies from year to year.

The proposed dock will cover an area of shallow water totaling 256 sq.ft. Ten 2.5-inch steel pipes will support the free-standing dock. Four 4-inch steel pipes will support the associated boatlift. No pile driving is necessary. The pre-manufactured, aluminum truss structure will have an open grating deck surface to minimize shading. Details are provided in the appendix. Installation of the new dock will require no construction or other change to current conditions upland of the OHWM. No vegetation will be eliminated with dock construction. Proposed mitigation will add 130 sq.ft. of new native landscaping within the shoreline area near OHW. This will have a small beneficial effect on habitat quality in the area.

3.1 Water Quality

Vegetation adjacent to a waterbody can improve water quality by filtering pollutants, removing nutrients, and preventing sediment introduction. The water quality function of the existing shoreline area is generally absent. The beach consists primarily of sands and gravels. While the beach area is periodically partially covered with grasses and forbs, vegetation for the most part is absent or sparse. Soils absorb some rainfall and surface water runoff coming from nearby slopes but wave action and rapid infiltration means that most water landing on the beach ends up in Lake Sammamish relatively quickly. Any foreign material such as silts and landscaping chemicals receive minor filtering action by the soils before water reaches the lake.

The addition of a five-foot wide native plant buffer between the lawn and the lake will slightly improve the quality of runoff from the site assuming chemicals such as fertilizer or herbicides

[4] Knutson, K. L. and V. L. Naef. 1997. Management recommendations for Washington's priority habitats: riparian. Washington Department of Fish and Wildlife, Olympia, WA. 181p.
[5] Ibid.
[6] For example, see Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas. 2002. Washington State Office of Community Development, Olympia, WA. and City of Bellevue's 2005 Best Available Science (BAS) Review (Herrera 2005).

are used on the non-native grasses. The overall effects will be minor given the absence of significant runoff in the area.

Table 1. Standard Lake Shoreline Buffer Functions and Analysis of Change

Buffer Function	Description of Function	Current Buffer Function	Buffer Function After Re-Development
Shade	The ability to help maintain low water temperatures and create a cool and humid microclimate.	**Non-existent** for the project site due to a lack of vegetation (trees and shrubs) overhanging or adjacent to Lake Sammamish.	**No change**
Beneficial Nutrient Sources	The ability to provide food resources to the Lake in the form of leaf litter, vegetative matter, and terrestrial insects.	**Low to non-existent** for the project site due to a scarcity of native vegetation within more than 100-feet of Lake Sammamish.	**Beneficial Effect** - 130-square feet of new native vegetation adjacent to OHW will increase nutrients.
Woody Debris Recruitment	The ability to provide large woody debris to Lake Sammamish.	**Non-existent** for the project site due to a lack of potential recruitment trees.	**No change**
Sediment and Pollutant Control	The ability to physically filter sediments, chemicals, and nutrients.	**Low due** to a lack of native vegetation and little surface water running off of, or across the site.	**Beneficial Effect** with planting of new native vegetation between lake and lawn.
Bank Stability and Sediment Recruitment	The ability to maintain bank stability and prevent increased erosion along the shoreline of Lake Sammamish.	**Low** due to lack of vegetation along shoreline.	**Beneficial Effect** with planting of new native vegetation adjacent to OHW.
Human Access Control	The ability to reduce or eliminate human disturbance along a sensitive shoreline.	**None.** Access control is not an issue for this private property.	**No change**
Wildlife Habitat Suitability	The ability to provide habitat for upland mammals and avian species within the riparian corridor.	**Low** for the project site. Site consists primarily of lawn with no wildlife function.	**Beneficial Effect** - 130-square feet of new native vegetation adjacent to Lake Sammamish will increase wildlife forage habitat

Shoreline Buffer Function: The physical, chemical, and biological processes or attributes of the buffer.

3.2 Water Quantity

No increase of impervious surface and no change in upland land use are proposed. Runoff volume from the site will not change.

3.3 Beneficial Nutrients

Native riparian buffers can be important to aquatic habitat productivity being the primary source of leaf litter and insects delivered to fish habitat. When present, overhanging vegetation contributes leaves, vegetative litter, and small woody debris directly to the waterbody.

No trees or shrubs will be removed under the proposed action. The applicant has proposed a native species revegetation effort for the lakefront area as mitigation for effects of the new dock. Native plants will be placed in the beach area between the OHW and the lawn. A small increase in beneficial nutrient delivery will be provided in this area.

3.4 Temperature & Shade

No overhanging vegetation is currently present on the subject property. Construction and presence of the small dock will have no effect on water temperature in Lake Sammamish.

3.5 Human Access Control

One function of buffers in populated areas can be reducing the direct encroachment of humans on the watercourse. This project will be conducted on private property where access control is not an issue.

3.6 Woody Debris

Large and small woody debris consists of downed tree stems and branches and is a functionally important structural component of watercourses and lakes in the Pacific Northwest. There is no vegetation capable of supplying woody debris on the property. The project will have no effect on woody debris contribution.

3.7 Bank Stability

Roots from vegetation growing along waterbodies can help stabilize soils and reduce erosion.

The sand and gravel found along the subject shoreline naturally aggrades and erodes with minimal influence of any native plants along the shoreline. The existing lawn currently located above OHW provides some stability along the upper shoreline area and helps prevent erosion. Planting above OHW will provide additional protection of the shoreline as wave attenuation is provided. Bank stability will be increased to a small degree by the proposed mitigation plantings.

3.8 Shoreline Function Conclusion

The site is currently developed with an existing residence and lawn. The proposed dock will not disturb any native vegetation or result in any physical change to the upland shoreline area. Due to the proposed increase in native vegetation, there will be a small beneficial effect on vegetative functions. No change in the quantity of water leaving the site is proposed and a minor benefit to water quality is expected. Under the Shoreline Management Act, this level of protection will provide "no net loss" of shoreline ecological functions necessary to sustain shoreline natural resources.

4.0 PROJECT EFFECTS ON CRITICAL AREAS

Critical areas are defined in the City of Bellevue under BCC LUC 20.25H.025. They include streams, wetlands, shorelines, geologic hazards, habitat and species of local importance, flood hazard areas, and buffers. Existing conditions of each critical area on or near the site are described in Section 2.0 of this report. This section describes any actions that will be taken within or near the critical area and any proposed changes to the functions or values that will occur.

4.1 Streams and Lakes

Due to the distance and multiple intervening properties, the project will have no effect on the functions or values of the small watercourse located 260-feet to the west, or the area of Lake Sammamish influenced by the watercourse.

Lake Sammamish borders the north side of the property. The proposed dock includes no upland work and no changes to the buffer or floodplain with the exception of the addition of 130 sq.ft. of new native plants in the buffer area. Effects on shoreline values are discussed in Section 3.

The dock will result in permanent overwater coverage of 256 sq.ft. and the addition of 10 new vertical supports. The boat lift will add an additional four vertical supports. The effect will be to reduce open water habitat along the shoreline to a small degree. This could adversely affect species that preferentially utilize the shoreline such as juvenile salmonids. It could also increase potential salmonid predator habitat for non-native ambush species such as bass.

Impact avoidance measures include no pile driving, no upland grading, no concrete work, and no vegetation clearing.

To minimize adverse effects of the new dock the design utilizes best management practices for docks as recommended by state and federal fisheries agencies. Impact minimization includes constructing the minimum size dock needed for expected uses (about half of the maximum recommended size of 480 sq.ft.), other shade reduction measures (no skirting, light permeable

decking, 18-inches above OHW, 4-foot ramp and 6-foot maximum width, no floats, etc.) use of durable and non-toxic materials, and a minimum pile size diameter.

Not all City of Bellevue Code requirements are met by the proposed dock design. Specifically, two of the support legs and the ell are closer to shore than required, and the overall spacing is smaller than required. The pre-fabricated dock comes in 8-foot and 16-foot sections. The minimum length dock needed to get to a 9-foot depth was 56-feet. This requires three 16-foot sections and one 8-foot section. Extending the dock beyond the 9-foot depth would require driven support pile rather than the small legs currently proposed. Because the dock will not be anchored to an on-shore structure, the 8-foot section was placed nearest shore to provide maximum stability in the area receiving the strongest wave action and use by people jumping on and off of the structure.

Pile spacing recommendations are based on observations that salmonid predators, specifically small-mouth bass, utilize vertical structure from which to ambush juvenile salmonids migrating along the shoreline[7]. To avoid this effect, the legs for the dock will be only 2.5-inches in diameter. This is too small to be effectively utilized by bass to hide. The lightweight dock support structure and open grating will also let more light through to the water than for more substantial structures made of wood. This also minimizes the potential for predation.

Construction impacts will be minimized by utilizing a pre-fabricated dock that requires minimal assembly, and work during the recommended work window for the protection of Chinook salmon and other salmonid species. No pile driving, upland grading, welding, concrete work, or clearing is necessary. The only construction impact will be a short term temporary increase in noise and visual disturbance as the dock is set-up.

Overall, the dock will slightly reduce aquatic habitat quality in the immediate area. The structure will be located in an area already containing numerous and larger residential docks so will not be a new impact. Compensatory mitigation measures will result in a small improvement in shoreline functions and values. No significant adverse effects are expected.

4.2 Wetlands

No wetlands, seeps or springs were noted on the site or reported in sensitive areas portfolios.

4.3 Shorelines

Lake Sammamish is a shoreline of the state. Changes to shoreline functions are described in Section 3.0 of this report.

[7] Corps of Engineers, United States Department of the Interior, United States Department of Commerce. 2001. Endangered Species Act guidance for new and replacement piers and bulkheads in Lake Washington, Lake Sammamish, and the Ship Canal, including Lake Union.

4.4 Steep Slopes

No steep slopes are located in the work area or within more than 100-feet of the work area. The project will have no effect on steep slopes.

4.5 Species of Local Importance

No habitat that may have provided urban wildlife habitat for species of local importance will be affected by the new dock. No native vegetation will be disturbed and no new human activities will be introduced to the area. The project will slightly increase native habitat with the planting of 130 sq.ft. of native shrubs and forbs along the shoreline. Overall there will be no significant adverse effects on upland wildlife habitat.

Sensitive fish species are found in Lake Sammamish and sockeye spawning has been reported in the area. However, no spawning or other habitat critical to protected salmon life histories is located on the site. The new dock will result in minor degradation of aquatic habitat quality in the immediate area. Significant efforts have been made to avoid and minimize impacts. Compensatory mitigation is also being provided. Overall, no significant adverse effects to wildlife habitat are expected.

4.6 Flood Hazard Areas

A flood hazard area is located on the site. No grading or filling is proposed within the floodplain and no change in compensatory flood storage volume will occur.

4.7 Critical Areas Effects Summary

The proposed action will take place almost entirely below the OHW line of Lake Sammamish. There are no streams, wetlands, steep slopes, or areas of natural wildlife habitat in or within 100-feet of the proposed work area. No permanent adverse changes to upland habitat will occur. No significant adverse effects on critical areas are expected. Minor impacts are being mitigated with new native plantings in the buffer.

5.0 MITIGATION

The proposed dock will have a small but long term adverse environmental effect on the ecological functions in the immediate area of Lake Washington. Mitigation for the project is being provided primarily by avoiding and/or minimizing impacts to sensitive areas. The dock design utilizes BMPs for docks as recommended by the WDFW and federal fisheries agencies to reduce effects on fish and aquatic habitat. Compensatory mitigation in the form of enhanced native plantings along the shoreline is proposed to help offset longer term impacts.

5.1 Impact Avoidance

The following actions are proposed to avoid impacts:

- No grading and only minor, temporary disturbance is proposed above the ordinary high water mark of Lake Sammamish.
- No work is proposed in wetlands, streams, or geologic hazard areas, or their buffers.
- No fill or grading is proposed within the floodplain.
- No native vegetation will be disturbed.

5.2 Impact Minimization

The following actions are proposed to minimize impacts:

- Work within the Lake Sammamish shoreline buffer and floodplain will be temporary, minimal, and limited only to areas of existing disturbance.
- BMPs recommended by the WDFW and federal fisheries agencies for the design of new docks have been utilized to reduce the effect on fish and aquatic habitat. These include shade and vertical structure minimization measures (see Section 4.1 for more detail).
- The dock is small, about half of the maximum recommended size.

5.3 Compensatory Mitigation

The following actions are proposed to mitigate for impacts:

- An area of 130 sq.ft. of new native plantings will be added to the Lake Sammamish buffer adjacent to the OHWM (see Planting Plan in Appendix).

6.0 MAINTENANCE

Controlling any non-native species and re-establishing native vegetation are the primary goals of this maintenance plan. Activities required to maintain new plantings include initial watering of the new plants, and periodic removal of non-native vegetation (weeding) within the buffer area.

- New plantings shall be watered from May through mid-October during the first season. A temporary irrigation system is allowed. A potable water source is available for this use.
- Due to the aggressively invasive habit of non-native species and the existence of nearby seed sources, control efforts shall be completed for five years following initial plant installation. Establishment of native plantings over the five year time period will create a well established native habitat lessening the chance for non-native vegetation invasion. The control of invasive weeds (competing grasses and herbs) shall be mechanically provided at the base of each plant at a minimum of twice per year, or more, should additional weeding be deemed necessary. The optimal season for weed control occurs in April thru September.

- The use of herbicides and pesticides after new planting operations is strictly prohibited unless given written permission by the City of Bellevue.
- All work shall be performed by hand with the lightest possible equipment.

7.0 MONITORING

Due to the small size and uncomplicated nature of the proposed planting area, and lack of wetland involvement, the planting area shall be self-maintained and self-monitored by the homeowner for five years. Vegetation monitoring shall consist of plant inspection to determine the health and vigor of each plant. All planted material in the buffer shall be inspected once a year for five years to determine the health of each specimen. Dead or dying material shall be replaced the following fall unless plant crowding is believed to be a problem. Plant species substitutions may be made if site conditions are believed responsible for plant mortality. Replacement species must be approved by the City.

Annual monitoring reports shall be submitted to the City of Bellevue, Attn: Environmental Planning Manager by October 31st in each of the five years. Photos of the mitigation plantings will be included in the monitoring reports to document conditions. The following schedule and performance standards apply and will be evaluated in the report for each year:

Year 1 (from date of plant installation)

- 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100% of original plantings
- Less than 10% coverage of invasive plants in planting area.

Year 2 (from date of plant installation)

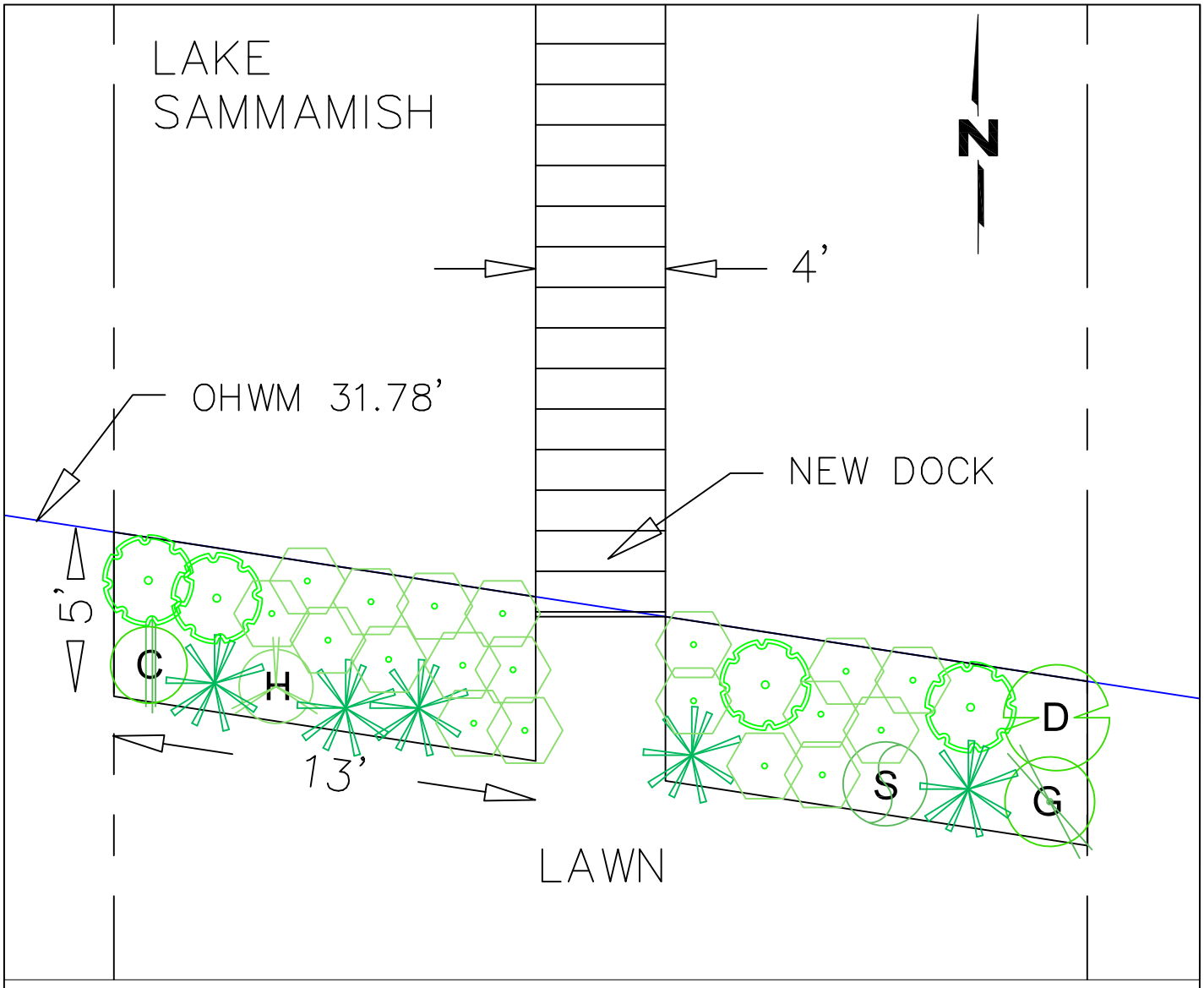
- At least 90% survival of all installed material
- Less than 10% coverage of planting area by invasive species or non-native/ornamental vegetation.

Year 3, 4, & 5 (from date of plant installation)

- At least 85% survival of all installed material
- At least 35% (Yr3), 50% (Yr4), 70% (Yr5) coverage of the planting area by native plants in each year respectively.
- Less than 10% coverage by invasive species or non-native/ornamental vegetation.

APPENDICES

Mitigation Planting Plan
Dock Design



PLANT NAME AND SPECIES	SIZE	NUMBER
SMALL FRUITED BULRUSH (Scirpus microcarpus)	1-GAL	4
SLOUGH SEDGE (Carex obnupta)	1-GAL	19
G RED HUCKLEBERRY Vaccinium parvifolium)	2-GAL	1
C FLOWERING CURRANT (Ribes sanguineum)	2-GAL	1
S SNOWBERRY (Symphoricarpos albus)	2-GAL	1
H BALD HIP ROSE (Rosa gymnocarpa)	2-GAL	1
D RED TWIG DOGWOOD (Cornus sericea)	2-GAL	1
DEER FERN (Blechnum spicant)	1-GAL	5

A total of 130 square feet of area to be planted in two 5' x 13' areas located immediately adjacent to the OHW. The planting areas currently consist of lawn and miscellaneous native and non-native shrubs. All non-native species will be eradicated,

A total of 33 shrubs/groundcovers (1 plant/4.0 square feet) shall be planted Existing native trees in the shoreline shall be preserved. See Sheet 2 for planting details.

TSENG & PANASYUK MITIGATION PLANTING PLAN	CEDAROCK CONSULTANTS, INC. 19609 244th Avenue NE Woodinville, WA 98077 (425) 788-0961	4131 181st Ave SE Bellevue WA 98008
		1" = 5' | SHEET 1 OF 2

PLANT INSTALLATION

1. Plant materials shall be nursery grown in the Puget Sound area. Plants shall be normal in pattern of growth, healthy, well–branched, vigorous, with well–developed root systems, and free of pests and diseases. Damaged, diseased, pest–infested, scraped, bruised, dried out, burned, broken, or defective plants will be rejected.
2. If selected species are not available, then similar species may be substituted with approval from owner and City of Bellevue.
3. Planting shall occur during the cool season (September 15 through March 15).
4. Landscaper shall examine soils in the area to determine suitability for selected plants. New topsoil or compost amendment shall be added to a depth of 12" where necessary to support plants.
5. Plant all groundcover plants approximately 18–inches on center.
6. Immediately after planting, plants shall be watered to saturation.
7. Actual planting locations shall be field determined at time of planting by landscape architect or biologist.
8. Provide good quality landscape mulch around all shrubs. This can be omitted around grasses.

LANDSCAPING MAINTENANCE

1. Controlling any non–native species and re–establishing native vegetation are the primary goals of this maintenance plan. Activities required to maintain new plantings include initial watering of the new plants, and periodic removal of non–native vegetation (weeding) within the planting area.
2. New plantings shall be watered from May through mid–October during the first season. A temporary irrigation system is allowed. A potable water source is available for this use.
3. Due to the aggressively invasive habit of many non–native species around Lake Sammamish, and the existence of nearby seed sources, control efforts shall be completed for five years following initial plant installation. Establishment of native plantings over the five year time period will create a well established native habitat lessening the chance for non–native vegetation invasion.
4. The control of invasive weeds (competing grasses and herbs) shall be mechanically provided throughout the planting area at a minimum of twice per year, or more should additional weeding be deemed necessary. The optimal season for weed control occurs in April thru September. The use of herbicides and pesticides after new planting operations is strictly prohibited unless given written permission by the City of Bellevue. All work shall be performed by hand with the lightest possible equipment.

MONITORING

1) Compliance monitoring consists of evaluating the plants and shoreline planting area immediately after plant installation. The objective is to verify that all design features, as agreed to in the plans, have been correctly and fully implemented, and that any changes made in the field are consistent with the intent of the design. Evaluation of the planting areas after restoration will be done by the homeowner. A brief compliance report will be prepared describing final plant counts and noting any substitutions or movement of plants when compared to the design. Rationale for changes shall be provided. Three photo points will be established giving complete coverage of the buffer area.

2) Long Term Monitoring – New plantings will be monitored in the summer once a year for a five year period. Monitoring will be conducted by the homeowner to quantify the survival, relative health and growth of plant material. An annual monitoring report submitted to the City following each years monitoring visit will describe and quantify the status of the mitigation and provide the three photos from the same locations as the compliance report.

Vegetation monitoring will consist of plant inspection to determine the health and vigor of the installation. All planted material in the buffer will be inspected during each monitoring visit to determine the level of survival of the installation. Each shrub and tree will be rated either as dead, dying, or healthy. Dead or dying material will be replaced the following fall unless plant crowding is believed to be a problem. Plant species substitutions may be made if site conditions are believed responsible for plant mortality. Replacement plants must be approved by the City. Volunteer native, non–invasive species will be included as acceptable components of the mitigation project. Ground covers will be rated as percent ground coverage for each of the major areas covered with these species.

At least three photo points will be established giving complete coverage of the buffer area. Photos will be taken at each point during every monitoring visit and submitted as part of the annual monitoring report.

PERFORMANCE STANDARDS

Year 1 (from date of plant installation)

- 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100% of original plantings
- Less than 10% coverage of invasive plants in planting area.

Year 2 (from date of plant installation)

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		NTS — SHEET 2 OF 2

Ashley Shoreline Design & Permitting

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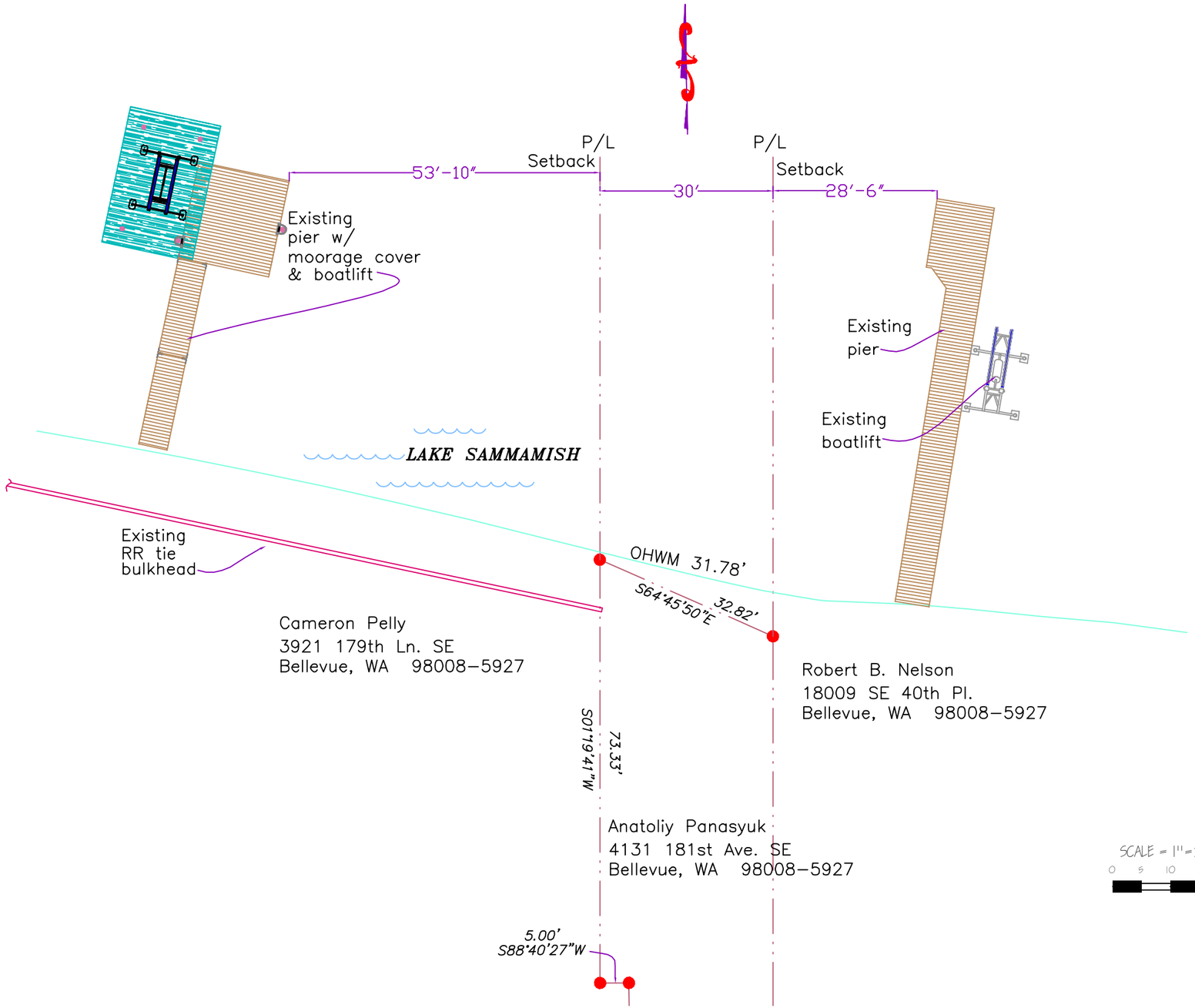

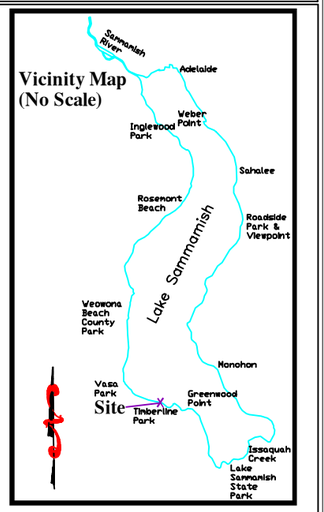

SHORELINE PROJECT FOR : Anatoliy Panasyuk 4131 181st Ave. SE Bellevue, WA 98008-5927 PAGE: 1 of 3	LOCATION: Lake Sammamish DATUM: NAVD 88 LAT: 47° 34' 19" North LONG: 122° 06' 02" West LENGTH FROM OHWM: 56' SQ. FT. : 257	PROJECT DESCRIPTION: Install new pre=manufactured pier and boatlift. DATE: 11/2/2014

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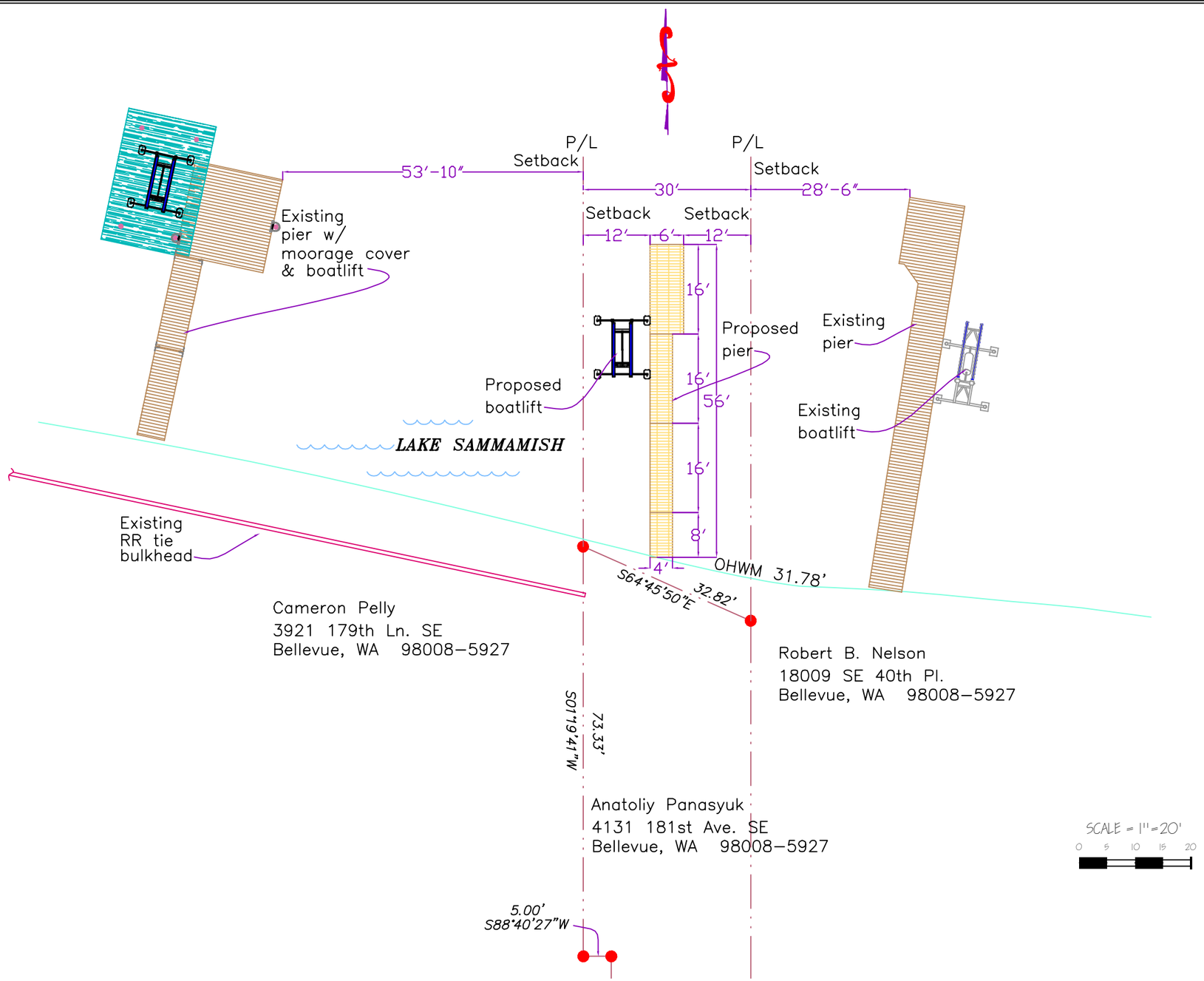

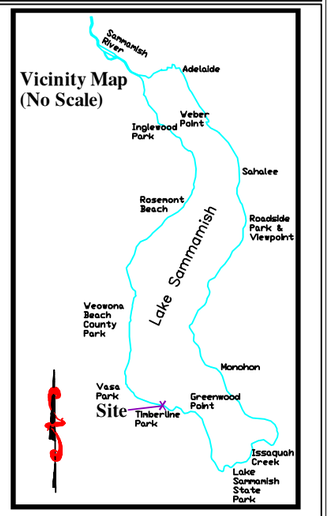

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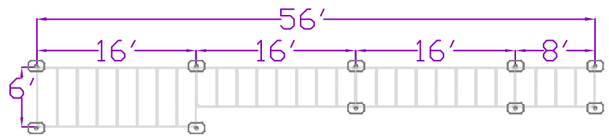
(TYP. DETAIL)



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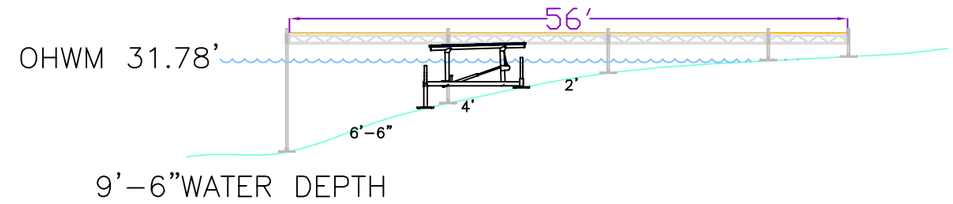

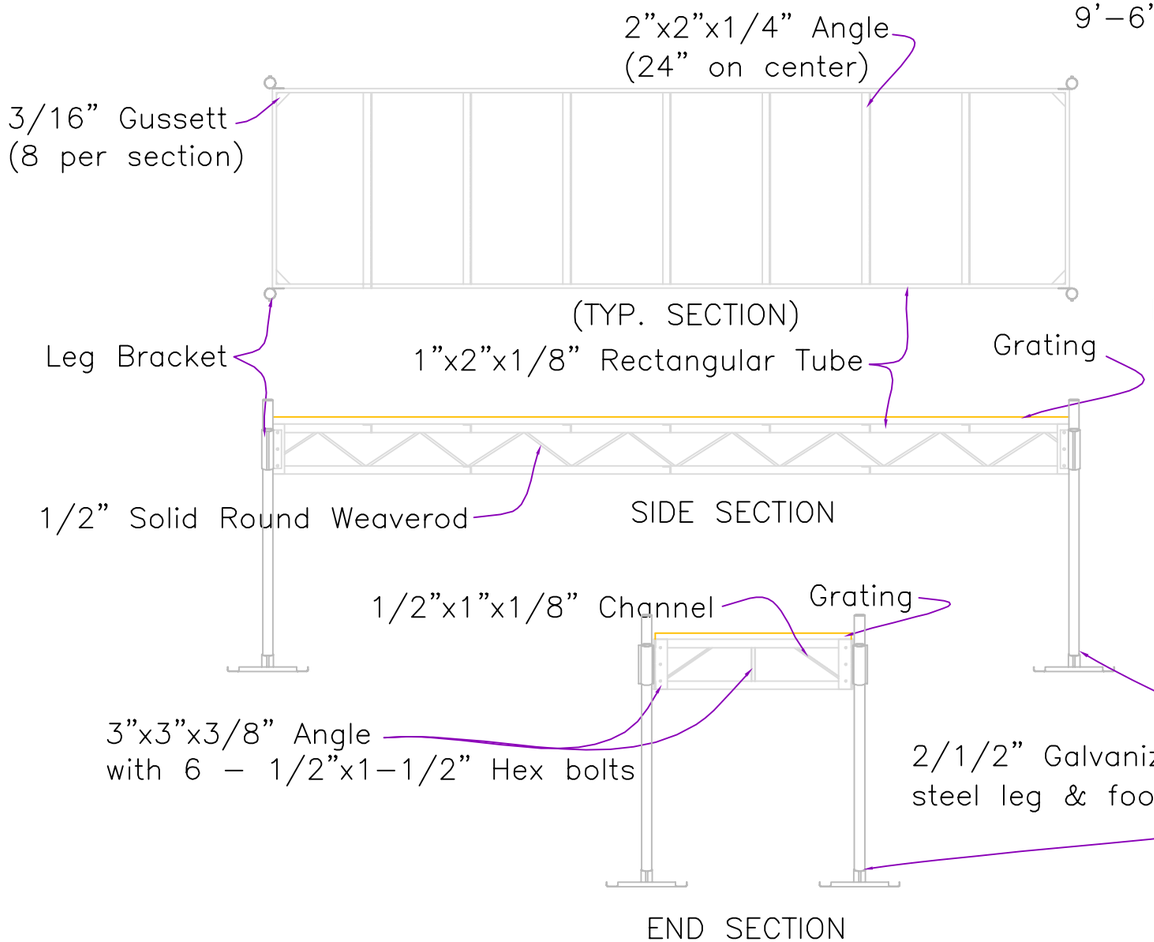

THE DOCK IS A HEWITT PRE-MANUFACTURED ALUMINUM TRUSS STRUCTURE
THE DOCK IS SUPPORTED WITH 2 1/2" GALVANIZED STEEL LEGS AND FOOT PADS

NOTES:
ALL LEGS & FOOT PADS ARE GALVANIZED STEEL
DECKING ATTACHED TO ALUMINUM TRUSS DOCK WITH S.S. SCREWS
DECKING TO BE THRU-FLOW GRATING
ALL HARDWARE IS EITHER GALVANIZED STEEL OR MARINE GRADE ALUMINUM

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