



STUDY SESSION

TUESDAY, AUGUST 15, 2017

**LOCATION: BAINBRIDGE ISLAND CITY HALL
280 MADISON AVENUE N., BAINBRIDGE ISLAND, WASHINGTON**

AGENDA (TIMES LISTED ON THE AGENDA ARE APPROXIMATE)

1. CALL TO ORDER / ROLL CALL- 7:00 PM

Mayor: Val Tollefson

Deputy Mayor: Sarah Blossom

Councilmembers: Ron Peltier Michael Scott
 Kol Medina Roger Townsend
 Wayne Roth

**2. ACCEPTANCE OR MODIFICATION OF AGENDA /
CONFLICT OF INTEREST DISCLOSURE**

3. PUBLIC COMMENT ON AGENDA ITEMS

4. NEW BUSINESS

A. 7:05 PM City Flag Contest Proposal, AB 17-141 - Executive (Pg. 3)

B. 7:15 PM City LTAC Project Proposal, AB 17-133 - Executive (Pg. 4)

C. 7:25 PM Resolution No. 2017-18 Adopting the Community Forest Management Plan (2006), AB 17-142 - Councilmembers Peltier and Medina (Pg. 29)

D. 7:35 PM Resolution No. 2017-19 Adopting the Bainbridge Island Open Space Study (2008), AB 17-143 - Councilmembers Peltier and Medina (Pg. 82)

E. 7:45 PM Utility Advisory Committee Recommendation on the SSWM Study, AB 17-147 - Public Works (Pg. 92)

F. 7:55 PM Soutter Property and Right-of-Way Vacation Proposal, AB 17-148 - Executive (Pg. 98)

5. FOR THE GOOD OF THE ORDER - 8:05 PM

6. ADJOURNMENT - 8:10 PM



Americans with Disabilities Act (ADA) accommodations provided upon request. Those requiring special accommodations, please contact the City Clerk at 206-842-2545 (cityclerk@bainbridgewa.gov) by noon on the day preceding the Meeting.

City of Bainbridge Island City Council Agenda Bill



PROCESS INFORMATION

Subject: 7:05 PM City Flag Contest Proposal, AB 17-141 - Executive (Pg. 3)	Date: 8/15/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-141
Proposed By: Kellie Stickney	Referrals(s):

BUDGET INFORMATION

Department: Executive	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW

:	Recommendation:	
City Manager: Yes	Legal: Yes	Finance:

DESCRIPTION/BACKGROUND

City Bainbridge Youth Services Interns Duncan Wallace and Chloe Lesh will present their concept for a City Flag design contest that could be implemented this Fall.

RECOMMENDED ACTION/MOTION

City of Bainbridge Island

City Council Agenda Bill



PROCESS INFORMATION

Subject: 7:15 PM City LTAC Project Proposal, AB 17-133 - Executive (Pg. 4)	Date: 8/15/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-133
Proposed By: Kellie Stickney	Referrals(s):

BUDGET INFORMATION

Department: Executive	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW

:	Recommendation:	
City Manager: Yes	Legal: Yes	Finance:

DESCRIPTION/BACKGROUND

Background: On May 9, 2017, the City Council met and approved the request for City staff to develop an application for Civic Improvement funds through the Lodging Tax Advisory Committee for a City Wayfinding project.

Request: After researching wayfinding plans, speaking with local design consulting firms, and examining comparable wayfinding projects from other area cities, we are proposing application for \$75,000 in Civic Improvement funds to complete an integrated pedestrian, vehicle, and cyclist wayfinding plan for Bainbridge Island.

Justification: The design process for an integrated wayfinding system is extensive, and will need to include pedestrian, vehicle, and cyclist signage to be most effective for the community. A mapped design plan will allow the City to implement a cohesive wayfinding system, and will more effectively promote the services and attractions available for tourists and residents throughout Bainbridge Island. The wayfinding protocol for the City of Port Orchard is attached for reference.

RECOMMENDED ACTION/MOTION

I move that the City Council forward to the August 22 consent agenda the City's proposal requesting authorization to apply for \$75,000 in Civic Improvement funds to develop a wayfinding protocol for Bainbridge Island.

ATTACHMENTS:

Description

Type

Signage and
Wayfinding
Development
City of Port Orchard
Washington
Contract No. 034-14

Submitted by
Ambrosini Design
1st of December 2015



Goals of the Wayfinding / Signage System

We are pleased to present the **Port Orchard Signage / Wayfinding Design Standards Guidelines**. In developing these standards, we have pursued the following goals and objectives:

- To develop an effective wayfinding system for pedestrians, vehicles, and short-term parking users that functions as an integral part of the cities urban environment.
- To use wayfinding to express Port Orchard's unique culture, philosophy, and image as it guides visitors to key destinations.

The wayfinding system will:

- Provide effective wayfinding for pedestrians and vehicles between major destinations throughout the city.
- Cultivate an overall **"Sense of Place"** for the community.
- Enhance and reinforce the unique experience for residents and visitors as they navigate the city.
- Enhance and reinforce the boundaries of the city with gateway and identity treatments.
- Work in conjunction with existing signage and enhance the overall wayfinding system.
- Provide all necessary information in a clear, concise, and minimal manner, while not adding to visual clutter.
- Be cost effective.
- Be programmed and designed for phased implementation.
- Allow for ease of updating and maintenance.

This manual should be used as a basic guide by city staff, consultants and fabricators engaged in the planning, design, fabrication, installation and maintenance of the sign system. The manual provides necessary drawings and details required to implement the signage/wayfinding system. Adherence to the standards in this manual will ensure consistency and a common visual language throughout the city. This manual is organized into sections: Programming, Graphic Standards, and Drawings of each sign type.

An effective signage/wayfinding system functions not as a separate entity but as an integral part of its environment. Carefully planned signs communicate essential information while also enhancing the urban environment.

As the visual introduction to the community, signs play a prominent role in defining the city's identity and boundaries. Caution and restraint must be observed in the final placement of signs. The phrase **"less is more"** is relevant in the context of signage/wayfinding for an urban system. Over signing community will create visual clutter and ultimately communicate less information to the user.

For this wayfinding design manual to function as intended, signs should be added only with a comprehensive review of the sign family and how each new sign will impact the overall system and streetscape. If this premise is followed, the signs will form a cohesive system that unites districts, provides visual continuity and enables the visitor to navigate the city with ease.

The Design Manual comprehensively details the correct use of the, typography, colors and the family of signs that comprise the wayfinding program. Feedback from the city and development staff is encouraged for successful implementation of this Wayfinding Design Manual.

Graphic references to history and community have been considered as an important visual element not only in wayfinding but also, in defining the city to the public. Sign materials and finishes have been selected for their longevity in the marine environment. A regional color family has been selected to provide a comprehensive graphic visual language for Port Orchard.

The sign system has been designed to help first time and infrequent visitors with wayfinding and to define the city's boundaries.

Arrival Signage is important to establish a **"Sense of Place"**. As a portal, Gateway Signage reinforces Port Orchard's rich history and reflects the community's future vision.

Through thoughtful use of this wayfinding design manual, signage and wayfinding will reinforce the link between the city, the community and the region.



1. **LOGO:** Refer to Graphic Standards Manual for complete logo guidelines



2. **GRAPHIC ELEMENT:** Compass Rose



3. **PROJECT ARROWS:** The project graphic designer will provide vector artwork for the approved arrow.

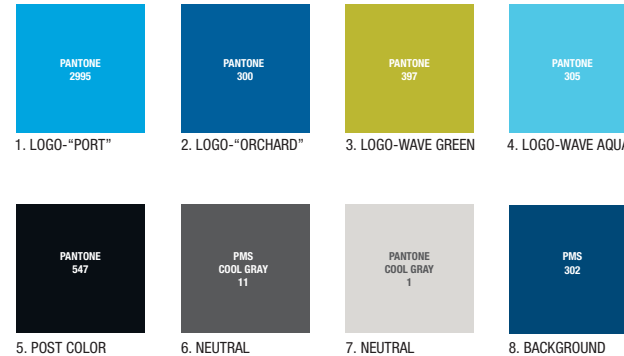


4. **INTERNATIONAL SYMBOLS:** The project graphic designer will provide final outlined artwork for the International Symbols.

1234567890
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 FONT: INTERSTATE-REG. CONDENSED

1234567890
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 FONT: INTERSTATE-BOLD CONDENSED

6. **PROJECT APPROVED FONTS**



5. **PRIMARY COLOR PALETTE**

0 1 2 3 4 5 6 7 8 9
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 FONT: FRANKLIN BOOK GOTHIC

0 1 2 3 4 5 6 7 8 9
 ABCDEFGHIJKLMNOPQRSTUVWXYZ
 abcdefghijklmnopqrstuvwxyz
 FONT: FRANKLIN DEMI GOTHIC

It is the Fabricator's responsibility to match all colors, finishes and materials specified in this document.

Please note that visual accuracy of the colors and finishes represented in this document may not be consistent with actual manufacturer's swatches and samples due to limitations of color printing technology.

The Fabricator is required to appropriate actual color swatches and material samples from the manufacturer.

If a substitute or deviation is recommended by the Fabricator, the recommendation shall be proposed in writing with a demonstration of equal or better value for consideration by the City of Port Orchard.



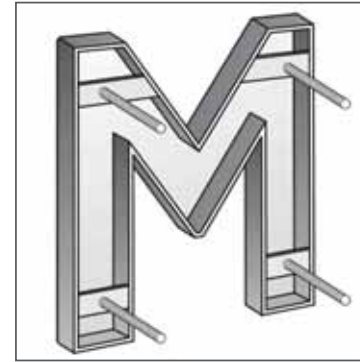
P1. FABRICATED PAINTED METAL LETTERS WITH STAND-OFFS



P2. FABRICATED PAINTED METAL LETTERS W/O STAND-OFFS



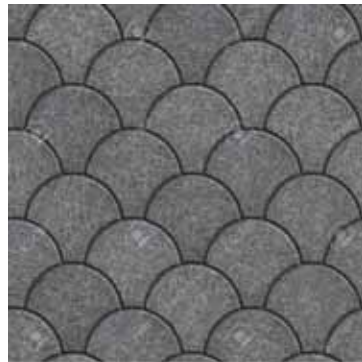
P3. FLAT CUT-OUT METAL LETTERS WITH STAND-OFFS



P4. STRIP MOUNTED METAL STUDS OF FABRICATED LETTER



P5. BOARD FORMED CONCRETE



P6. STAMP PATTERN IN CONCRETE - NO COLOR



P7. BOARD FORMED CONCRETE - TEXTURE



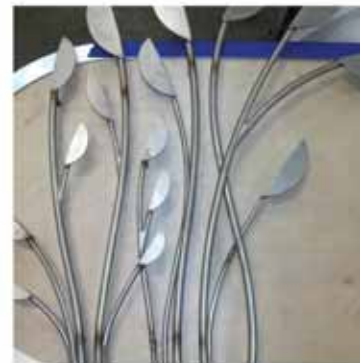
P8. STAMP PATTERN IN CONCRETE - NO COLOR



P9. WEATHERED STEEL - LANDSCAPING EDGE



P10. OCEAN GRANITE - LANDSCAPE COVER



P11. METAL FORMED INTO INTERWOVEN PATTERN



P12. EXPOSED AGGREGATE WITH PATTERN

NOTE:
Photo examples of materials, finishes and
fabrication details that pertain to the project.

G1.3

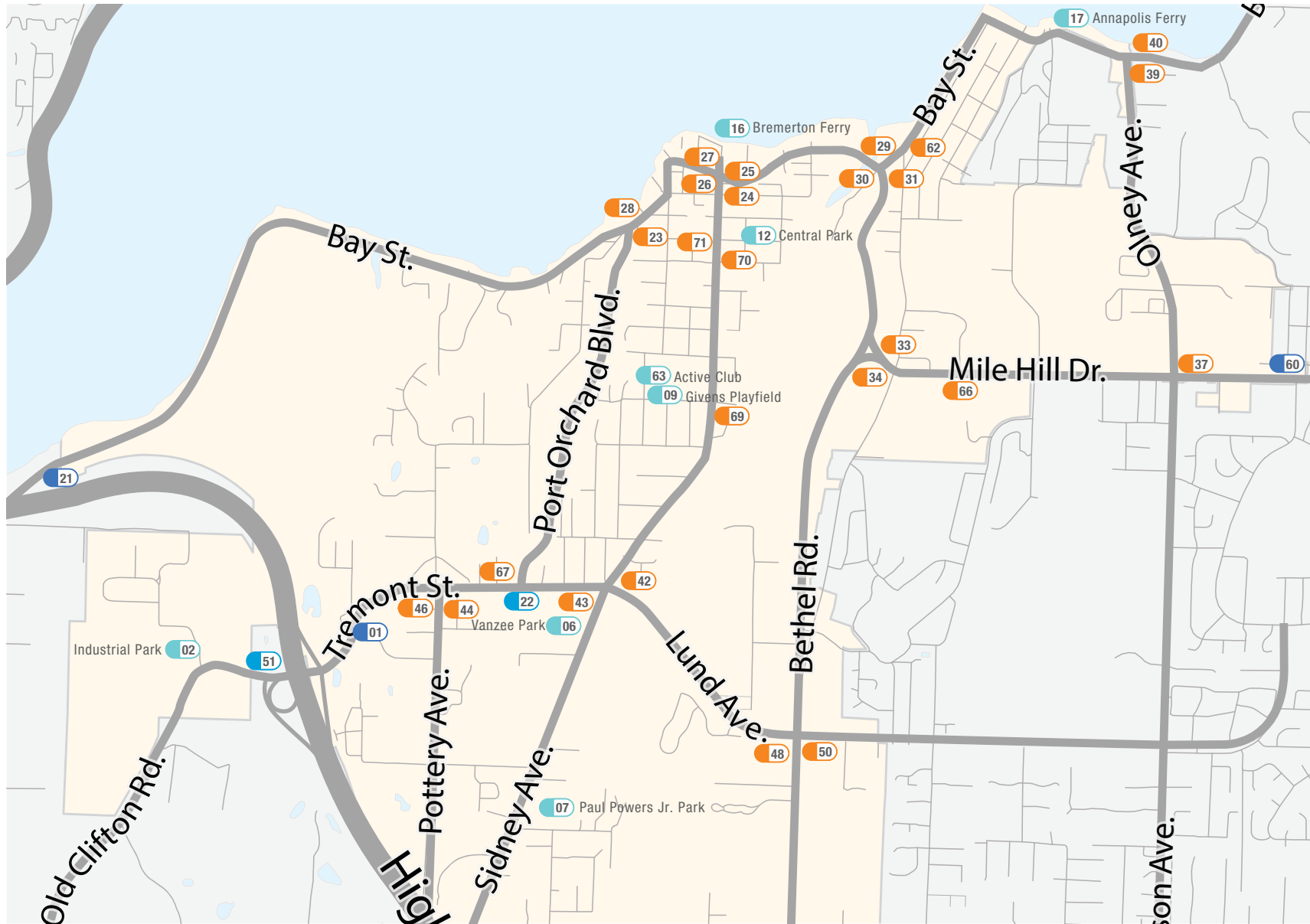
All drawings that appear herein express design intent only and are not intended for actual fabrication. The Sign Contractor is responsible for any required engineering and production of shop drawings prior to fabrication.

DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING





- LEGEND:
-  Monument Gateway Sign:
G3.2 / G3.3
 -  Trailblazer Primary Sign:
G3.5
 -  Vehicular Destination Sign:
G3.4
 -  Vehicular Directional Sign:
G3.6

G2.1

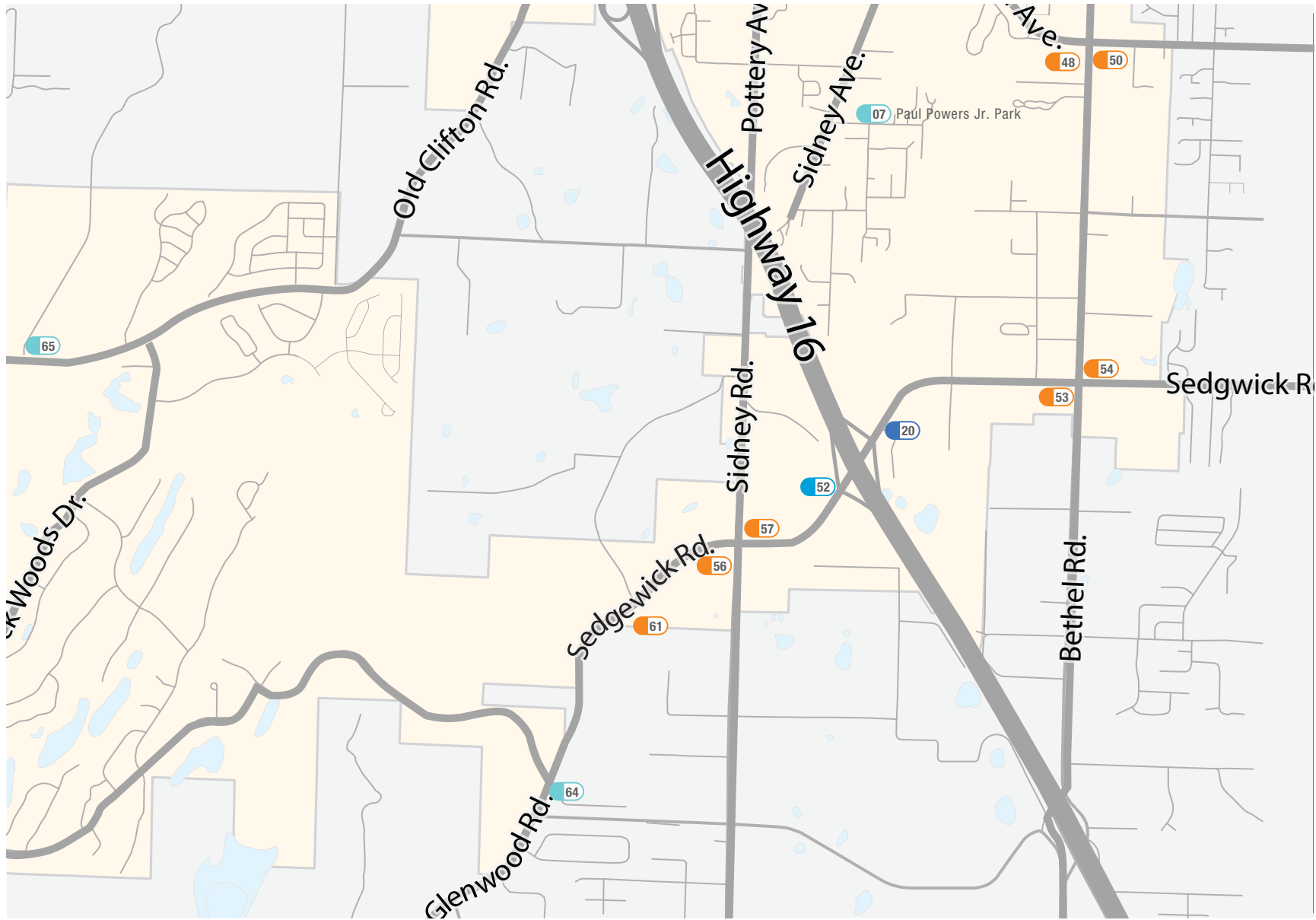
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Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING





LEGEND:

-  Monument Gateway Sign: G3.2 / G3.3
-  Trailblazer Primary Sign: G3.5
-  Vehicular Destination Sign: G3.4
-  Vehicular Directional Sign: G3.6

G2.2

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DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING



AMBROSINI design

Sign No.	Type	Message	Location	Traffic Direction
 01	Monument Gateway	Welcome to Port Orchard	Roundabout at Tremont & S. Kitsap Blvd	EB
 02	Destination Sign	Industrial Park	Old Clifton Rd. & Lloyd Parkway	
 03				
 04				
 05				
 06	Destination Sign	Vanzee Park	Tremont St. & Sidney Ave.	
 07	Destination Sign	Paul Powers Park	Sidney Ave. & Granat Rd.	
 08				
 09	Destination Sign	Givens Playfield	Sidney Ave. & Kendall St.	
 10				
 11				
 12	Destination Sign	Central / Clayton Park	Dwight St. & Harrison Ave.	
 13				
 14				
 15				
 16	Destination Sign	Bremerton Foot Ferry	Right in front of the terminal	
 17	Destination Sign	Annapolis Foot Ferry	Beach Dr.	
 18				
 19				
 20	Monument Gateway	Welcome to Port Orchard	Roundabout at Sedgwick & Bravo Terr.	EB
 21	Monument Gateway	Welcome to Port Orchard	Hwy. 16 & Bay St.	EB

LEGEND:

-  XX Monument Gateway Sign: G3.2 / G3.3
-  XX Trailblazer Primary Sign: G3.5
-  XX Vehicular Destination Sign: G3.4
-  XX Vehicular Directional Sign: G3.6

Sign No.	Type	Message	Location	Traffic Direction
 22	Trailblazer Primary	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse	Tremont St. & Port Orchard Blvd.	EB
 23	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall/Police (4th Item TBD)	Bay St. & Port Orchard Blvd.	NB/EB
 24	Vehicular Directional	Bremerton Foot Ferry Library Annapolis Foot Ferry Port Orchard High School	Bay St. & Sidney Ave.	NB
 25	Vehicular Directional	City Hall/Police Bremerton Foot Ferry Library Kitsap County Courthouse Museum (TBD)	Bay St. & Sidney Ave.	WB
 26	Vehicular Directional	Bremerton Foot Ferry Library Kitsap County Courthouse South Kitsap High School	Bay St. & Sidney Ave.	EB
 27	Vehicular Directional	Kitsap County Courthouse City Hall/Police Kitsap County High School Annapolis Foot Ferry	Bay St. & Sidney Ave.	SB
 28	Vehicular Directional	To SR 16 Gorst To SR 3 Bremerton To SR 16 South to Tacoma (OPTIONAL: Naval Base Kitsap)	Bay St. & Port Orchard Blvd.	WB
 29	Vehicular Directional	Downtown Bremerton Foot Ferry City Hall / Police Kitsap County Courthouse	Bay St. & Bethel Rd.	WB
 30	Vehicular Directional	Annapolis Foot Ferry South Kitsap High School	Bay St. & Bethel Rd.	EB
 31	Vehicular Directional	Downtown City Hall / Police Bremerton Foot Ferry Annapolis Foot Ferry	Bay St. & Bethel Rd.	NB
 32				

LEGEND:

-  Monument Gateway Sign: G3.2 / G3.3
-  Trailblazer Primary Sign: G3.5
-  Vehicular Destination Sign: G3.4
-  Vehicular Directional Sign: G3.6

Sign No.	Type	Message	Location	Traffic Direction
 33	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse → → → →	Mile Hill Dr. East of Bethel Roundabout	WB
 34	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police South Kitsap High School ↑ ↑ ↑ →	Mile Hill Dr. & Bethel Rd.	NB
 35				
 36				
 37	Vehicular Directional	Downtown Bremerton Foot Ferry Annapolis Foot Ferry City Hall / Police ↑ ↑ → ↑	Mile Hill Dr. & Oney NE	EB
 38				
 39	Vehicular Directional	Downtown Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse ← ← ← ←	Beach Dr. & Olney Ave.	NB
 40	Vehicular Directional	Welcome to Port Orchard	Beach Dr. & Olney Ave.	WB
 41				
 42	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse → → → →	Lund Ave. & Sidney Ave.	WB
 43	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse (Library and Givens TBD) ← ← ← ←	Tremont St. & Sidney Ave.	EB
 44	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse → → → →	Pottery Ave. & Tremont St.	NB
 45				

LEGEND:

-  Monument Gateway Sign: G3.2 / G3.3
-  Trailblazer Primary Sign: G3.5
-  Vehicular Destination Sign: G3.4
-  Vehicular Directional Sign: G3.6

Sign No.	Type	Message	Location	Traffic Direction
46	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Kitsap County Courthouse Cedar Heights Jr. High	Pottery Ave. & Tremont St.	EB
47				
48	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police South Kitsap Regional Park	Lund Ave. & Bethel Rd.	EB
49				
50	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries Kitsap County Courthouse South Kitsap Regional Park	Bethel Rd & Lund Ave	NB
51	Trailblazer Primary	Downtown / Waterfront McCormick Woods / Golf Course	Hwy. 16 & Tremont St.	NB
52	Trailblazer Primary	Downtown / Waterfront McCormick Woods / Golf Course	Hwy. 16 & Glenwood Dr.	SB
53	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse	Sedgwick Rd. & Bethel Rd.	EB
54	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Police Kitsap County Courthouse	Sedgwick Rd. & Bethel Rd.	WB
55				
56	Vehicular Directional	Downtown / Waterfront Bremerton Foot Ferries City Hall / Kitsap County Courthouse Cedar Heights Jr. High	Sedgwick Rd. & Sidney Rd.	EB
57	Vehicular Directional	Downtown / Waterfront City Hall / Police Kitsap County Courthouse McCormick Woods / Golf Course	Sedgwick Rd. & Sidney Rd.	WB
58				
59	Trailblazer Primary	Downtown / Waterfront Bremerton Foot Ferries City Hall / Kitsap County Courthouse McCormick Woods / Golf Course	Hwy 16 NB Off Ramp at Tremont (not on map)	NB

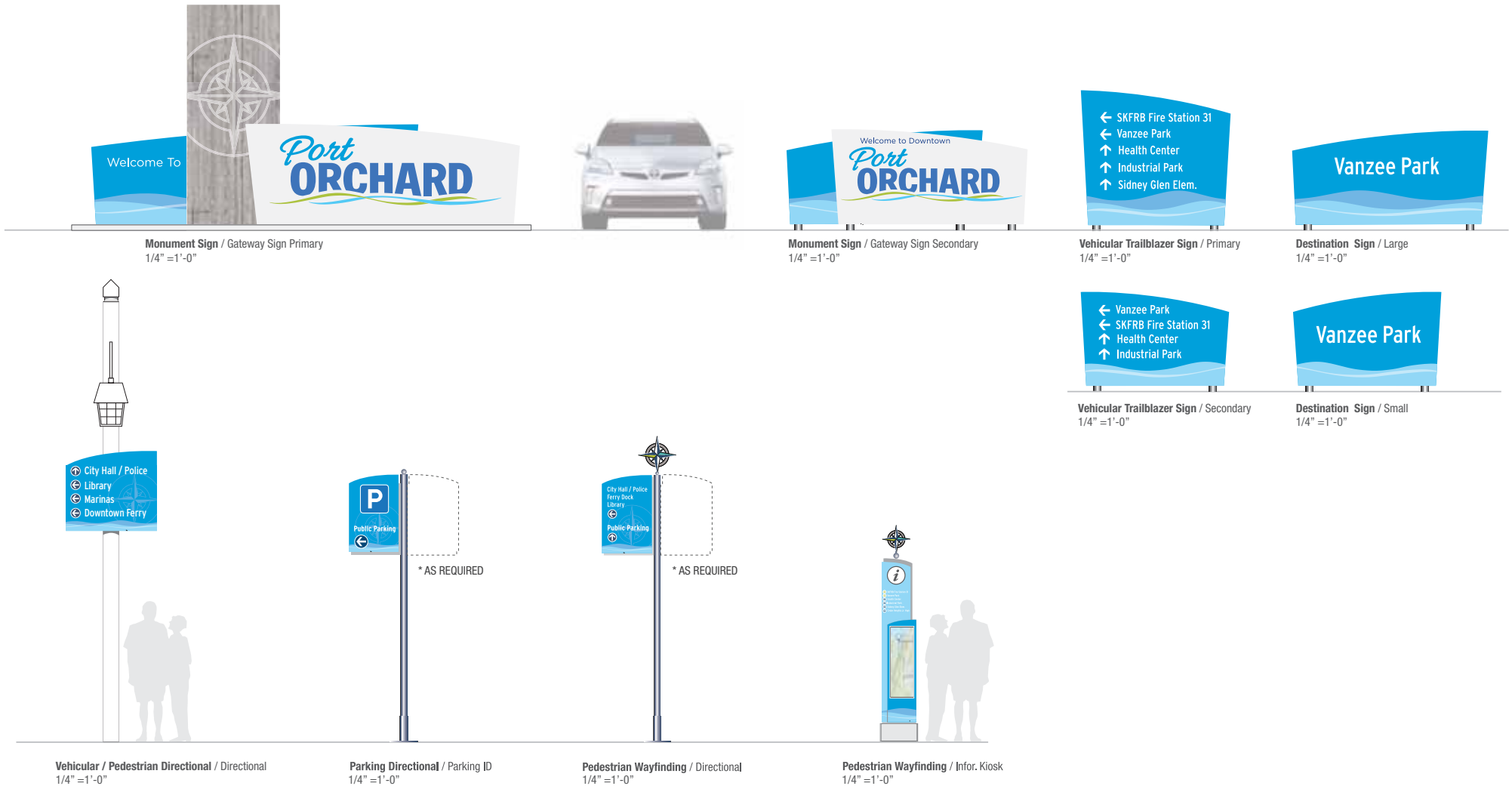
LEGEND:

-  Monument Gateway Sign:
G3.2 / G3.3
-  Trailblazer Primary Sign:
G3.5
-  Vehicular Destination Sign:
G3.4
-  Vehicular Directional Sign:
G3.6

Sign No.	Type	Message	Location	Traffic Direction
 60	Monument Gateway	Welcome to Port Orchard	Mile Hill at Eastern City Limits	WB
 61	Vehicular Directional	Welcome to Port Orchard	Glenwood	EB
 62	Vehicular Directional	South Kitsap High School →	Mitchell Ave. & Bay St.	EB
 63	Destination Sign	Active Club	Sydney Ave.	
 64	Vehicular Directional	McCormick Woods → McCormick Village Park → Golf Course → (Puget Sound Industrial Center TBD) ↑	Glenwood Rd. & McCormick Woods Dr.	WB
 65	Destination Sign	McCormick Village Park	Old Clifton Rd.	
 66	Vehicular Directional	South Kitsap High School ←	Mile Hill Dr. & Wolves St.	EB
 67	Vehicular Directional	SR-16 Tacoma / Bremerton → McCormick Woods / Golf course → McCormick Village Park → Port Orchard Industrial Park →	Port Orchard Blvd. & Tremont St.	SB
 68	Trailblazer	McCormick Woods / Golf Course ← Downtown/Waterfront → City Hall / Kitsap County Courthouse → Bremerton Foot Ferries →	NB SR - 16 Off Ramp at Sedgwick (not on map)	NB
 69	Vehicular Directional	Givens Playfield ← Port Orchard Active Club ←	Sidney Ave. & Sroufe St.	NB
 70	Vehicular Directional	Kitsap County Courthouse ←	Sidney Ave. & Division St.	NB
 71	Vehicular Directional	Kitsap County Courthouse →	Sidney Ave. & Division St.	SB

LEGEND:

-  Monument Gateway Sign: G3.2 / G3.3
-  Trailblazer Primary Sign: G3.5
-  Vehicular Destination Sign: G3.4
-  Vehicular Directional Sign: G3.6



G3.1

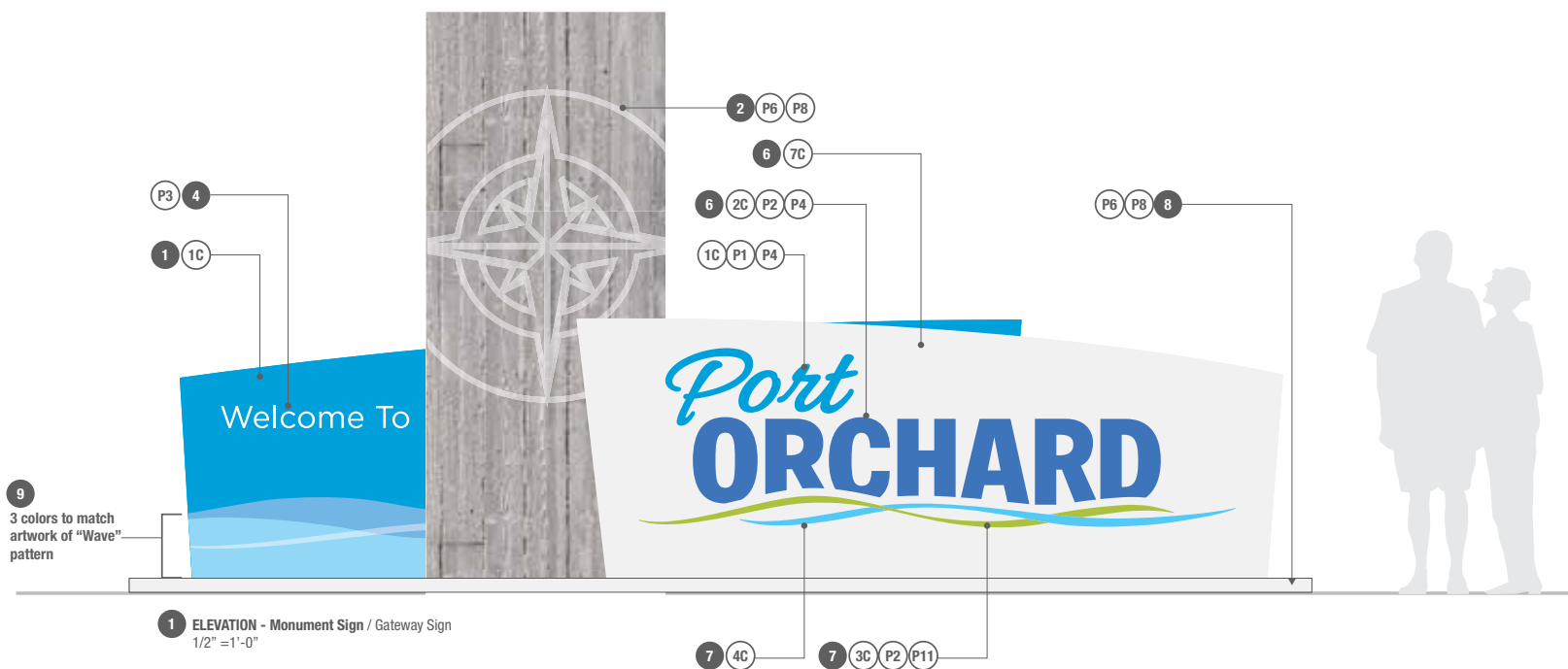
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DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING
SIGN FAMILY





1. Alum sheet over aluminum structural frame anchored into concrete foundation. Metal gauge thickness sufficient to prevent oil canning of sign face(s).
2. Vertical board formed concrete with Compass Rose stamp pattern in concrete, front surface only.
3. 3000 psi concrete foundation
4. Flat cut out type pin mounted off sign cabinet face, paint finish.
Welcome to, 1/4" thick stainless steel, alloy 316 with mounting studs.
5. Screen printed graphic logo. Designer to provide logo color and cutting templates.
6. Fabricated painted alum. letters with mounting studs, 11 gauge thickness.
Port, 1.5" returns.
Orchard, 3" returns.
7. Wave logo elements, 1/4" flat cut out alum., with 1/2" stand offs, paint stand offs to match wave colors.
8. Exposed aggregate flatwork with wave pattern.
9. Frisk and paint with Matthews Paint Wave pattern in 3 colors to match artwork.
NOTE: Wave patterns is painted on returns and face only of back sign panel.

OPTION 1. Lighting: Arrowlinear LED by Cooper Lighting.

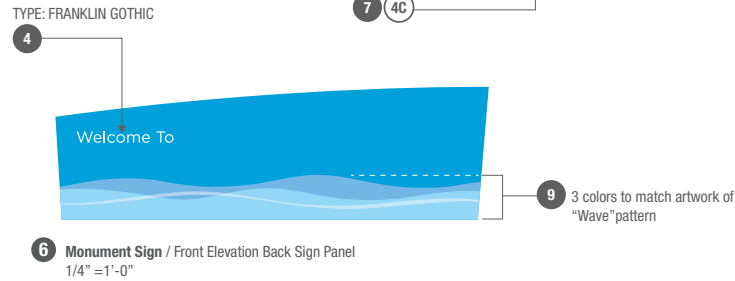
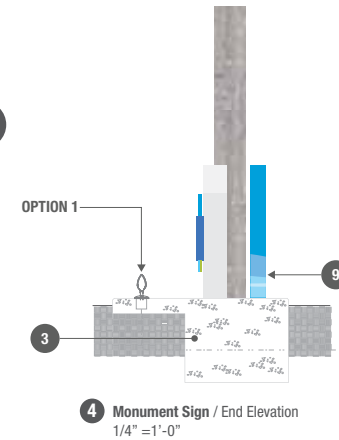
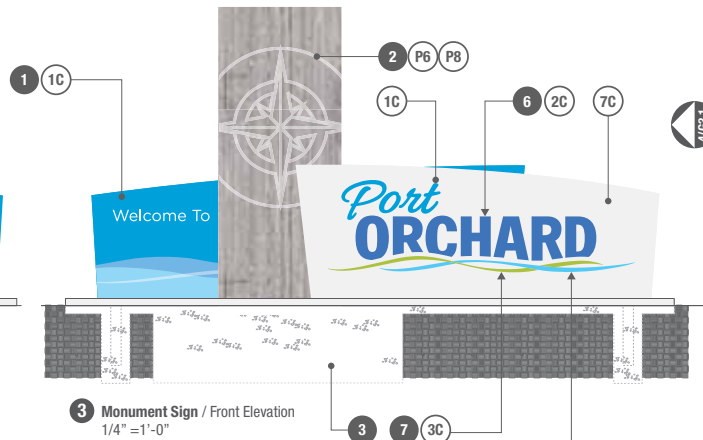
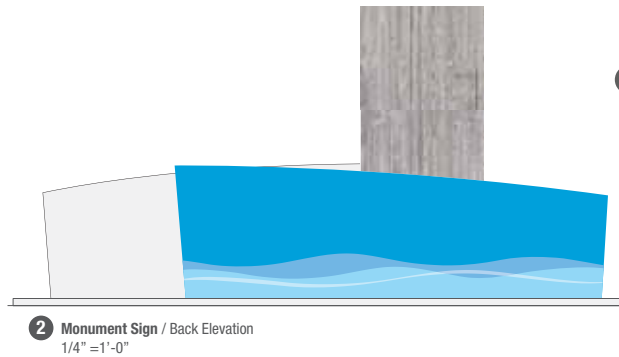
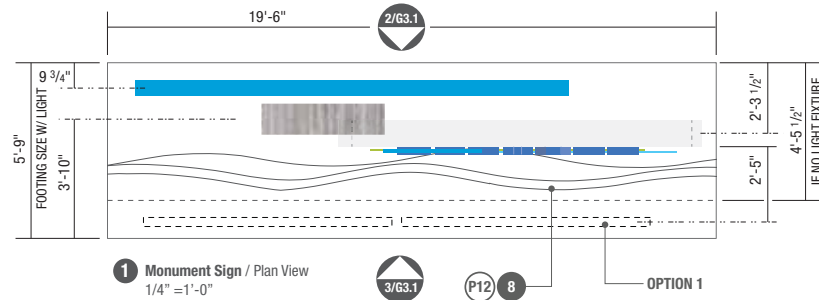
Option 2. Wave pattern digital printed on 3M Controlthc Graphic Film Series 180, w/ 3M Scotchcal Luster Overlaminate 8519.

Paint Colors:

- 1C. Pantone 2995
- 2C. Pantone 300
- 3C. Pantone 397
- 4C. Pantone 305
- 5C. Pantone 547
- 6C. Pantone Cool Gray 1
- 7C. Pantone Cool Gray 11
- 8C. Pantone 302

NOTE:
Fabricator is responsible for all structural engineering for maximum wind load (140 mph) and foundation compliance. All fasteners shall be 316 stainless steel. All galvanized components shall be hot dipped. All colors and graphic imagery shall receive the maximum UV protection. Cutting templates and production ready art available from designer and shall be provided upon contract award.





1. Alum sheet over aluminum structural frame anchored into concrete foundation
2. Vertical board formed concrete with Compass Rose stamp pattern in concrete, front surface only.
3. 3000 psi concrete foundation, sign fabricator to provide engineering as required for footing to meet local codes, soil, wind load & sign weight.
4. Flat cut out type pin mounted off sign cabinet face, paint finish.
Welcome to, 1/4: thick stainless steel, alloy 316 with mounting studs.
5. Screen printed graphic logo. Designer to provide logo color and cutting templates.
6. Fabricated painted alum. letters with mounting studs, 11 gauge thickness.
Port, 1.5" returns.
Orchard, 3" returns.
7. Wave logo elements, 1/4" flat cut out alum., with 1/2" stand offs, paint stand offs to match wave colors.
8. Exposed aggregate flatwork with wave pattern.
9. Frisk and paint with Matthews Paint Wave pattern in 3 colors to match artwork.
NOTE: Wave patterns is painted on returns and face only of back sign panel.

OPTION 1. Lighting: Arrowlinear LED by Cooper Lighting.

Option 2. Wave pattern digital printed on 3M Controltac Graphic Film Series 180, w/ 3M Scotchcal Luster Overlaminate 8519.

Paint Colors:
1C. Pantone 2995
2C. Pantone 300
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7C. Pantone Cool Gray 11
8C. Pantone 302

NOTE:
Fabricator is responsible for all structural engineering for maximum wind load (140 mph) and foundation compliance. All fasteners shall be 316 stainless steel. All galvanized components shall be hot dipped. All colors and graphic imagery shall receive the maximum UV protection. Cutting templates and production ready art available from designer and shall be provided upon contract award.



AMBROSINI design

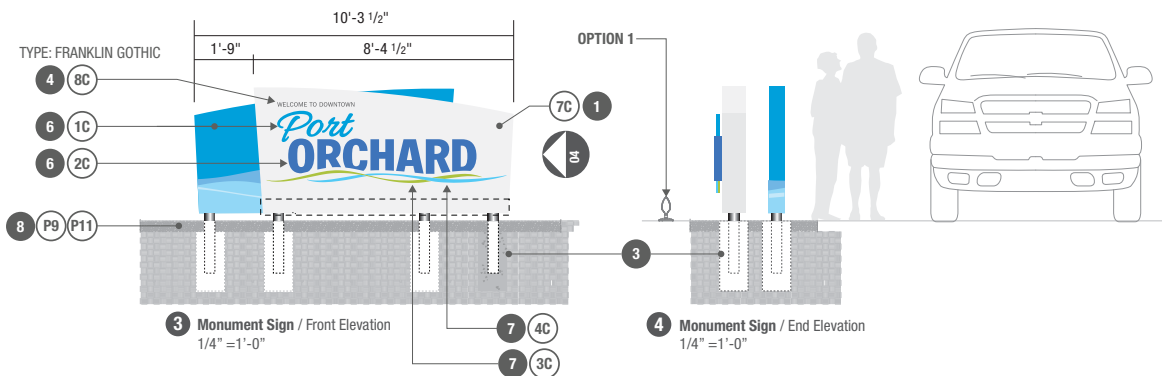
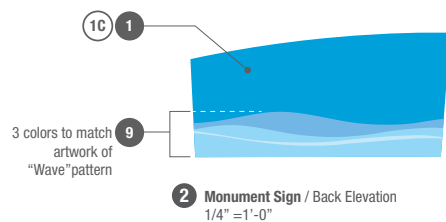
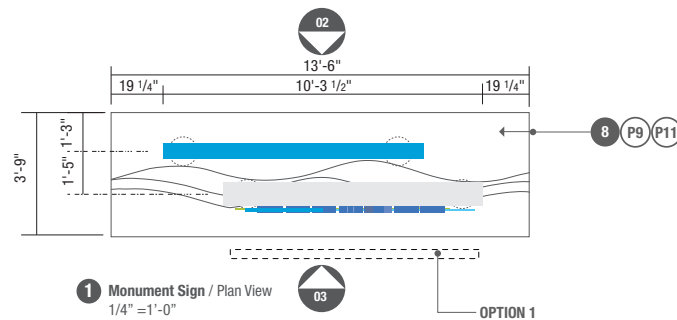
G3.3

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DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING



1. Alum sheet over aluminum structural frame anchored into concrete foundation
2. Vertical board formed concrete with Compass Rose stamp pattern in concrete, front surface only.
3. 3000 psi concrete foundation. Direct burial post footing(s) to meet all local building codes & soil conditions
4. Flat cut out type pin mounted off sign cabinet face, paint finish.
Welcome to, 1/4" thick stainless steel, alloy 316 with mounting studs.
Port, 1.5" returns.
Orchard, 3" returns.
5. Screen printed graphic logo. Designer to provide logo color and cutting templates.
6. Fabricated painted alum. letters with mounting studs, 11 gauge thickness.
Port, 1.5" returns.
Orchard, 3" returns.
7. Wave logo elements, 1/4" flat cut out alum., with 1/2" stand offs, paint stand offs to match wave colors.
8. Decorative gravel, **Ocean Granite**, 3/4" or similar with 1/8" corten landscaping edge.
9. Frisk and paint with Matthews Paint Wave pattern in 3 colors to match artwork.
NOTE: Wave patterns is painted on returns face and back of sign panel.

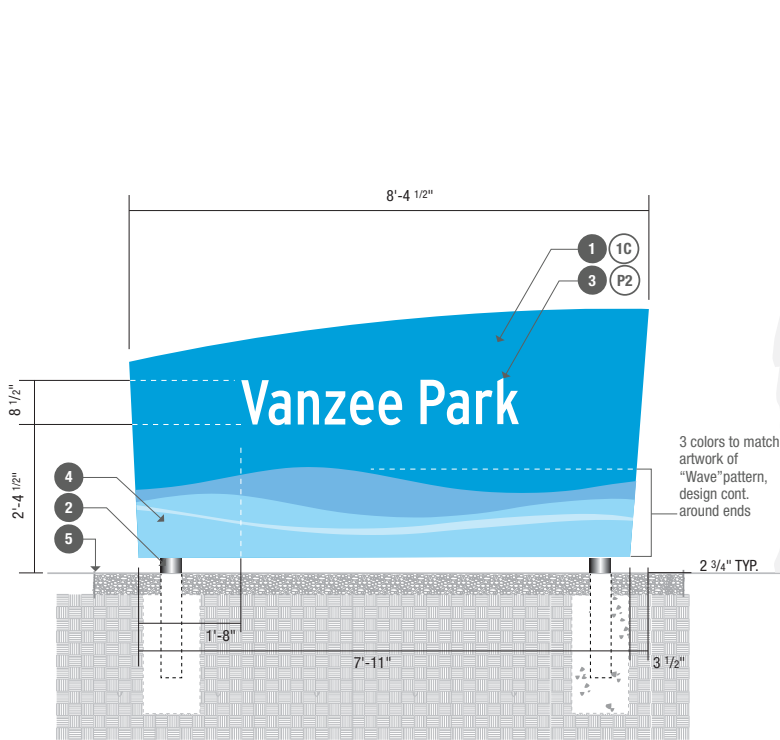
OPTION 1. Lighting: Arrowline LED by Cooper Lighting.

Option 2. Wave pattern digital printed on 3M Controltac Graphic Film Series 180, w/ 3M Scotchcal Luster Overlaminate 8519.

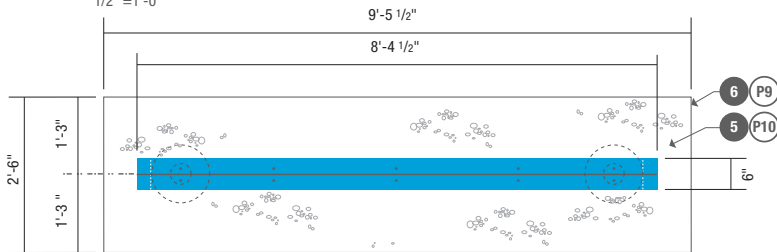
Paint Colors:
1C. Pantone 2995
2C. Pantone 300
3C. Pantone 397
4C. Pantone 305
5C. Pantone 547
6C. Pantone Cool Gray 1
7C. Pantone Cool Gray 11
8C. Pantone 302

NOTE:
 Fabricator is responsible for all structural engineering for maximum wind load (140 mph) and foundation compliance. All fasteners shall be 316 stainless steel. All galvanized components shall be hot dipped. All colors and graphic imagery shall receive the maximum UV protection. Cutting templates and production ready art available from designer and shall be provided upon contract award.

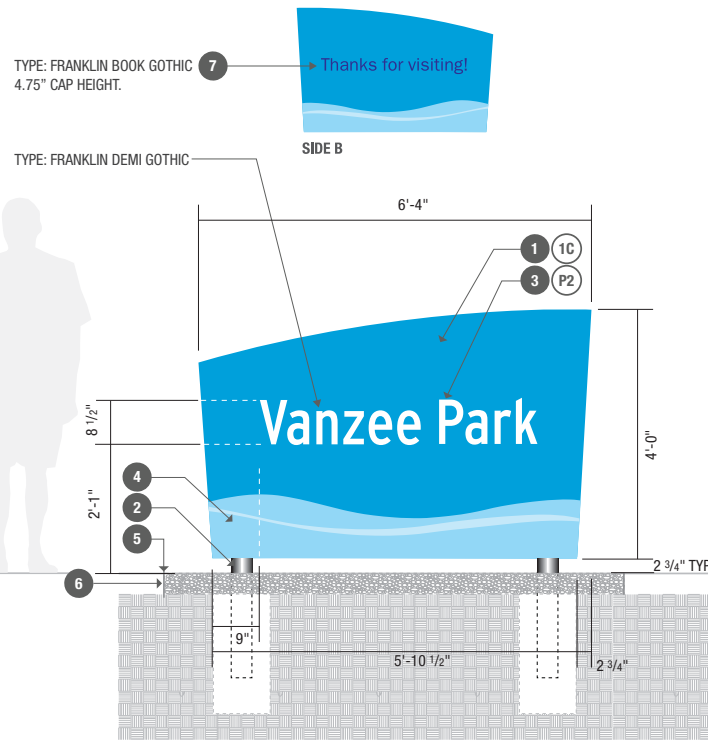




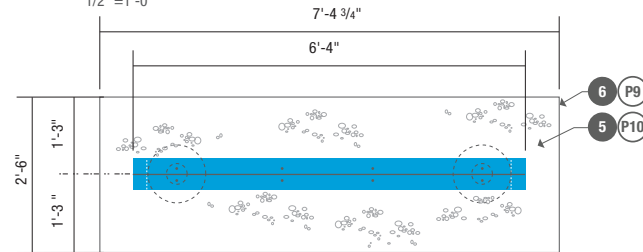
1 ELEVATION - Destination Sign / Large
1/2" = 1'-0"



2 PLAN - Destination Sign / Large
1/2" = 1'-0"



3 ELEVATION - Destination Sign / Small
1/2" = 1'-0"



4 PLAN - Destination Sign / Small
1/2" = 1'-0"

1. Alum sheet over aluminum structural frame anchored into concrete foundation
2. 3000 psi concrete foundation. Direct burial post footing(s) to meet all local building codes & soil conditions
3. Flat cut out type flush mounted to sign cabinet face and paint finish. 1/4" thick aluminum with mounting studs.
4. Screen printed graphic logo. Designer to provide logo color and cutting templates. Frisk and paint with Matthews Paint Wave pattern in 3 colors to match artwork. **NOTE: Wave patterns** is painted on returns, face and back of sign panel.
5. Decorative gravel, **Ocean Granite**, 3/4" or similar.
6. 1/8" thk. corten or weathered steel landscaping edge.
7. **3M Reflective Graphic Film: Blue 680-72** type applied to sign face.

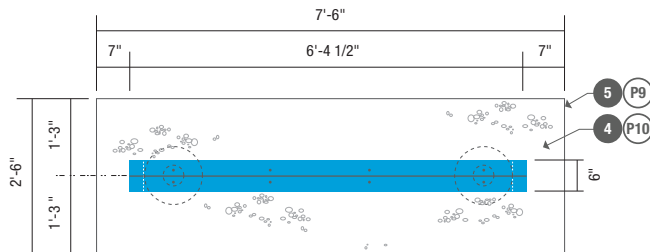
Option 2. Wave pattern digital printed on 3M Controltac Graphic Film Series 180, w/ 3M Scotchcal Luster Overlaminat 8519.

Paint Colors:
1C. Pantone 2995
2C. Pantone 300
3C. Pantone 397
4C. Pantone 305
5C. Pantone 547
6C. Pantone Cool Gray 1
7C. Pantone Cool Gray 11
8C. Pantone 302

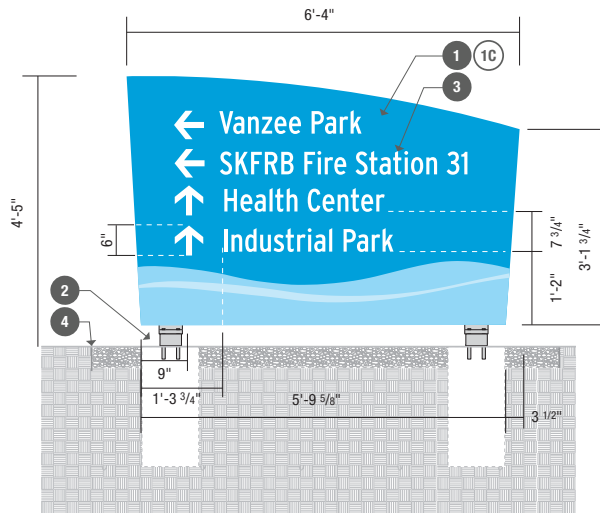
NOTE:
Fabricator is responsible for all structural engineering for maximum wind load (140 mph) and foundation compliance. All fasteners shall be 316 stainless steel. All galvanized components shall be hot dipped. All colors and graphic imagery shall receive the maximum UV protection. Cutting templates and production ready art available from designer and shall be provided upon contract award.



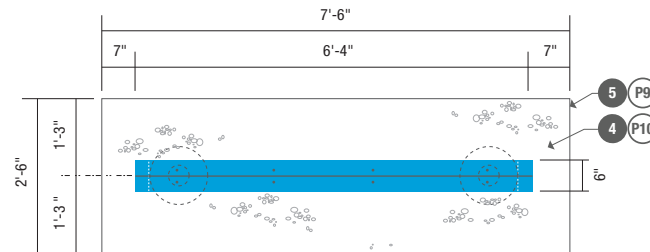
1 ELEVATION - Vehicular Trailblazer Sign / Primary
1/2" = 1'-0"



2 PLAN - Vehicular Trailblazer Sign / Primary
1/2" = 1'-0"



3 ELEVATION - Vehicular Trailblazer Sign / Secondary
1/2" = 1'-0"



4 PLAN - Vehicular Trailblazer Sign / Secondary
1/2" = 1'-0"

1. Alum sheet over aluminum structural frame anchored into concrete foundation
2. 3000 psi concrete foundation.
Post footing(s) to meet all local building codes & soil conditions.
RE: SHEET 3/G4.1 for base bracket detail.
3. 3M Reflective Graphic Film: White 680, or 5100 digitally printed type and graphics.
NOTE: Wave patterns is painted on returns, face and back of sign panel.
4. Decorative gravel, Ocean Granite, 3/4" or similar.
5. 1/8" thk. corten or weathered steel landscaping edge.

Option 2. Wave pattern digital printed on 3M Controltac Graphic Film Series 180, w/ 3M Scotchluster Overlamine 8519.

Paint Colors:
1C. Pantone 2995
2C. Pantone 300
3C. Pantone 397
4C. Pantone 305
5C. Pantone 547
6C. Pantone Cool Gray 1
7C. Pantone Cool Gray 11
8C. Pantone 302

NOTE:
Fabricator is responsible for all structural engineering for maximum wind load (140 mph) and foundation compliance. All fasteners shall be 316 stainless steel. All galvanized components shall be hot dipped. All colors and graphic imagery shall receive the maximum UV protection. Cutting templates and production ready art available from designer and shall be provided upon contract award.

G3.6

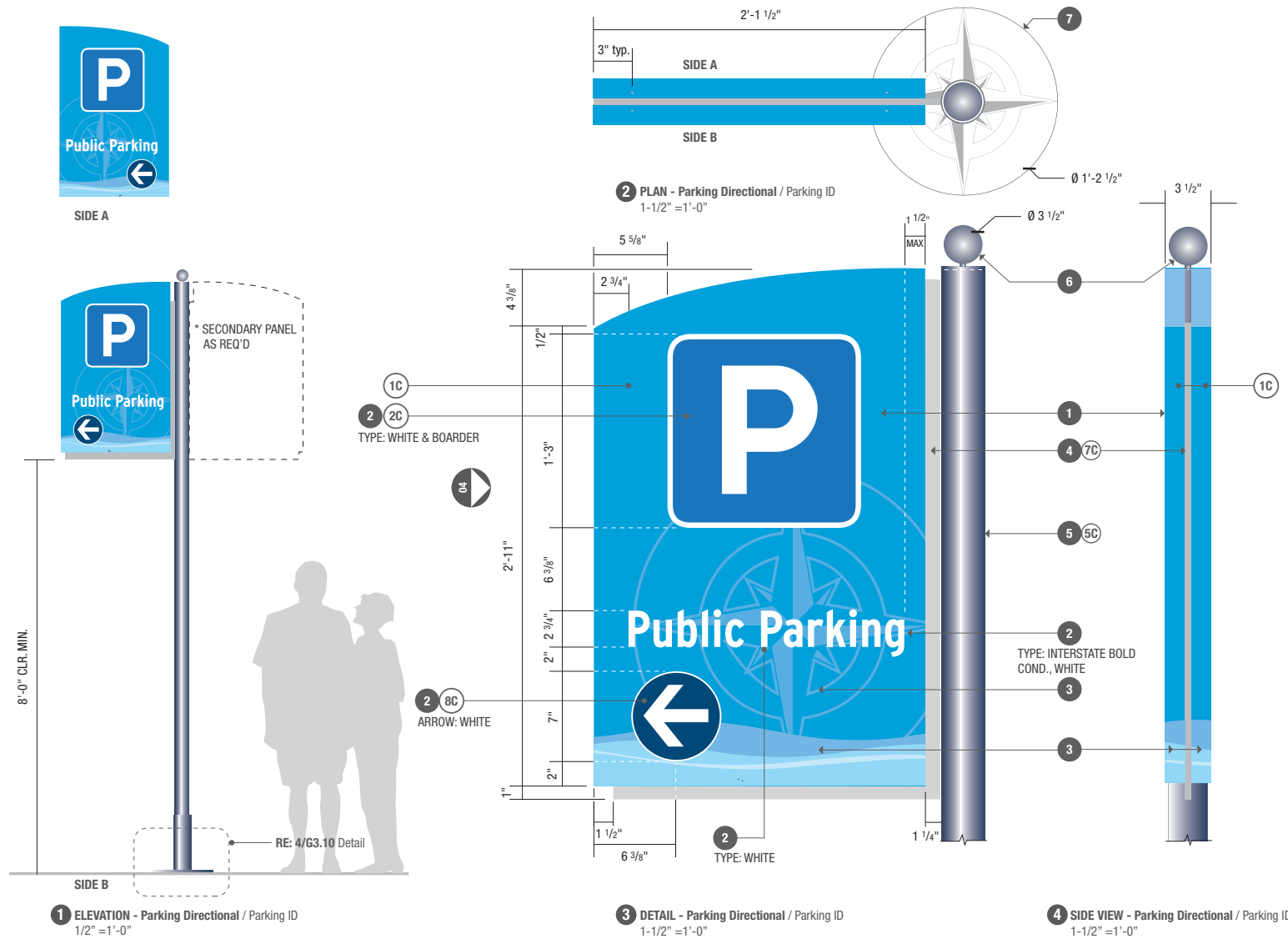
All drawings that appear herein express design intent only and are not intended for actual fabrication. The Sign Contractor is responsible for any required engineering and production of shop drawings prior to fabrication

DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING





G3.8

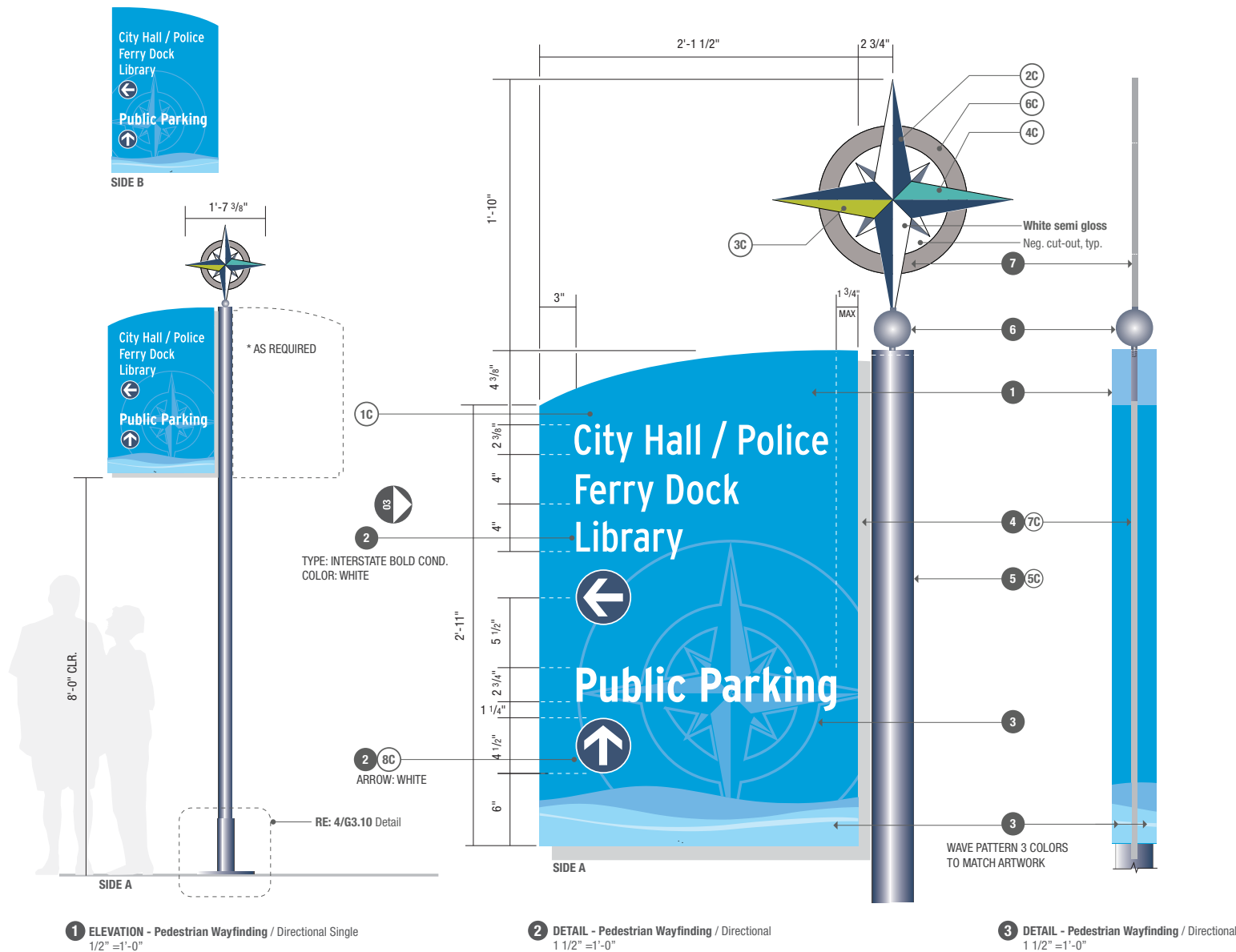
All drawings that appear herein express design intent only and are not intended for actual fabrication. The Sign Contractor is responsible for any required engineering and production of shop drawings prior to fabrication

DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING





- 16 GA. Alum. pan formed sign panels with welded and ground smooth corners and radius top, powdercoat base color to match: CMYK: 76C 20Y Provide (4) thru holes, 2 top / 2 bottom for SST #8-32 pan head security head fastener.
- 3M Reflective Graphic Film: White 680, or 5100 type and international symbols applied to sign face.
- Graphical elements to be screenprinted over powdercoat base layer with epoxy inks.
- 3/8" Thick aluminum plate stitch weld to aluminum sign pole. Plate to have (8) 1/4" tap and threaded tabs welded to the face for mechanically attaching pan formed aluminum sign faces.
- 3" dia. Sched. 40 Aluminum sign pole with powdercoat finish, direct burial or break-away footing as required, 1/4" thick welded end cap with tap and threaded hole for 1/4-20 one end only.
- 3-1/2" SS sphere mechanically attached to sign pole end cap.
- 3/8" Thk. aluminum waterjet cut and paint infilled rose compass welded to 3-1/2" dia. mechanically attached sphere

Paint Colors:
 1C. Pantone 2995
 2C. Pantone 300
 3C. Pantone 397
 4C. Pantone 305
 5C. Pantone 547
 6C. Pantone Cool Gray 1
 7C. Pantone Cool Gray 11
 8C. Pantone 302

G3.9

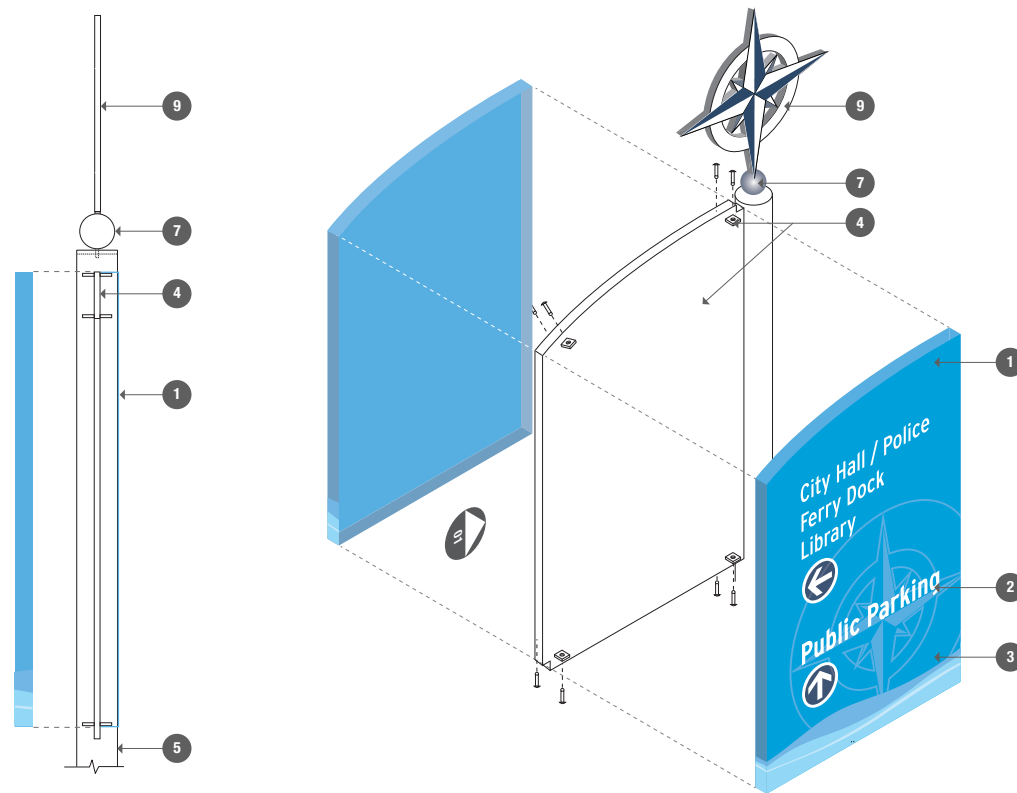
All drawings that appear herein express design intent only and are not intended for actual fabrication. The Sign Contractor is responsible for any required engineering and production of shop drawings prior to fabrication

DECEMBER 1, 2015

Design Intent Drawings
 Bid Issue

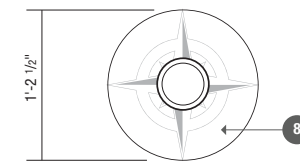
PORT ORCHARD | WAYFINDING



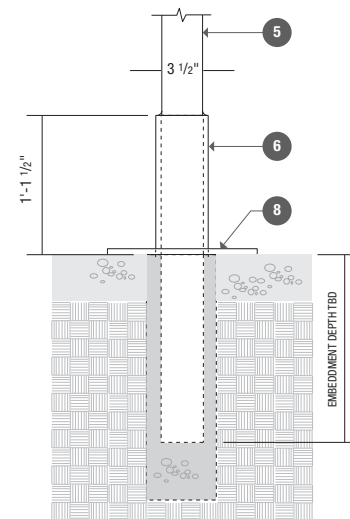


1 End View / Pedestrian Wayfinding / Directional
1" = 1'-0"

2 Axonometric / Pedestrian Wayfinding / Directional
1" = 1'-0"



3 Partial Plan / Pedestrian Wayfinding / Directional
1" = 1'-0"



4 Detail / Pedestrian Wayfinding / Directional
1" = 1'-0"

1. 16 GA. Alum. pan formed sign panels with welded and ground smooth corners and radius top, powdercoat base color to match: CMYK: 76C 20Y Provide (4) thru holes, 2 top / 2 bottom for SST #8-32 pan head security head fastener.
 2. **3M Reflective Graphic Film: White 680**, or **5100** type and international symbols applied to sign face.
 3. Graphical elements to be screenprinted over powdercoat base layer with epoxy inks.
 4. 3/8" Thick aluminum plate stitch welded to aluminum sign pole. Plate to have (8) 1/4" tap and threaded tabs welded to the face for mechanically attaching pan formed aluminum sign faces.
 5. 3" dia. Sched. 40 Aluminum sign pole with powdercoat finish, direct burial footing, 1/4" thick welded end cap with tap and threaded hole for 1/4-20 one end only.
 6. 3-1/2" dia. Sched. 40 Aluminum post base sleeved over smaller diameter pole and continuous welded. Exposed edge to receive eased edge, all welds ground smooth.
- NOTE:**
Footing is subject to WSDOT standard guidelines as noted in WSDOT Design Manual 1600.04(2)(d). If a suitable location meeting WSDOT guidelines can not be found, detail 4 is to be superceded by 1/G4.1
7. 3-1/2" Sphere mechanically attached to sign pole end cap.
 8. 1/2" Thk. aluminum escutcheon plate plug welded from beneath with photoetched graphic on the face, 1/8" chamfered edge.
 9. 3/8" Thk. aluminum waterjet cut and paint infilled rose compass welded to 3-1/2" dia. mechanically attached sphere

G3.10

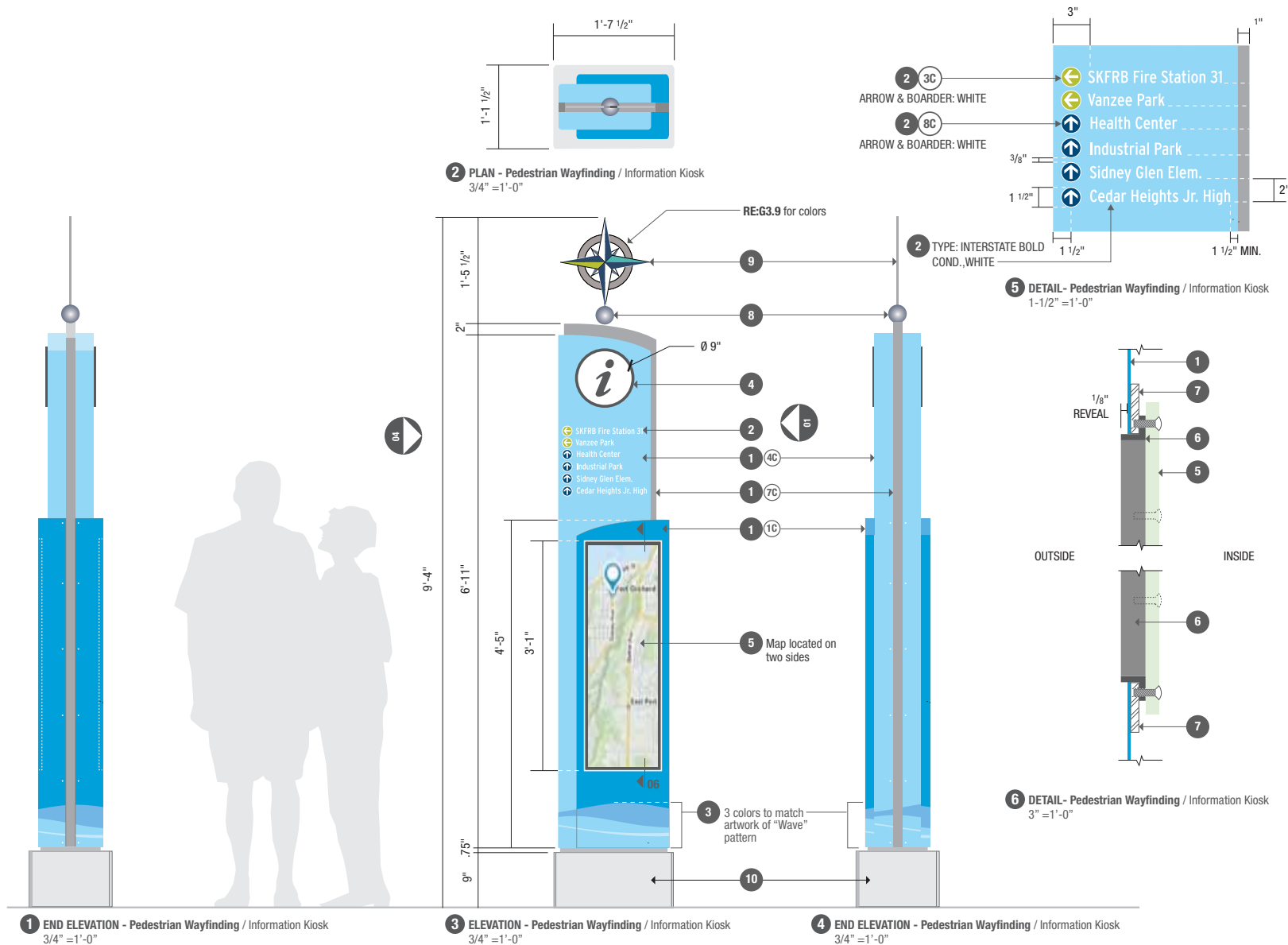
All drawings that appear herein express design intent only and are not intended for actual fabrication. The Sign Contractor is responsible for any required engineering and production of shop drawings prior to fabrication

DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

PORT ORCHARD | WAYFINDING





- Alternate Pricing: ***
- Option A1. Wave pattern digital printed on 3M Controltac Graphic Film Series 180, w/ 3M Scotchluster Overlaminate 8519.**
- Paint Colors:**
- 1C. Pantone 2995
 - 2C. Pantone 300
 - 3C. Pantone 397
 - 4C. Pantone 305
 - 5C. Pantone 547
 - 6C. Pantone Cool Gray 1
 - 7C. Pantone Cool Gray 11
 - 8C. Pantone 302

G3.11

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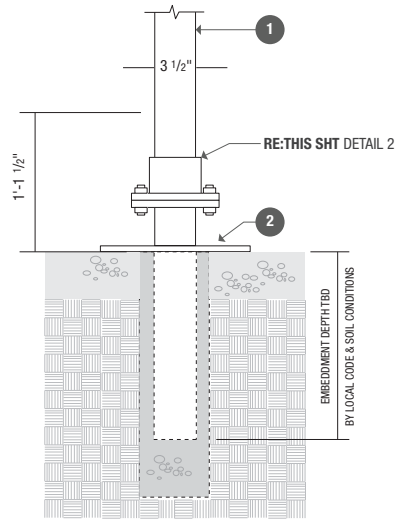
DECEMBER 1, 2015

Design Intent Drawings
Bid Issue

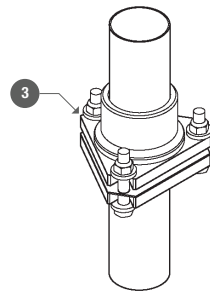
PORT ORCHARD | WAYFINDING

AMBROSINI design

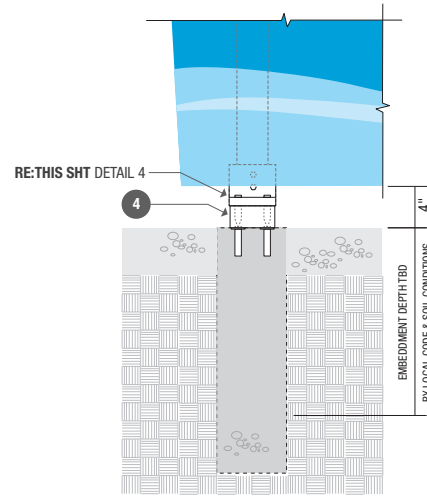




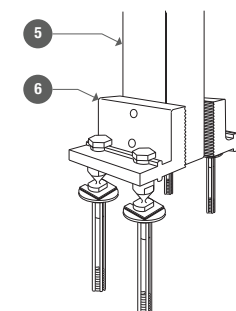
1 BREAKAWAY - TYPE PL SIGN SUPPORT
1" = 1'-0"



2 BREAKAWAY - TYPE PL SUPPORT ISO
NTS



3 BREAKAWAY - TYPE AS SIGN SUPPORT
1" = 1'-0"



4 BREAKAWAY - TYPE AS SIGN SUPPORT ISO
NTS

1. 3" dia. Sched. 40 Aluminum sign pole with powdercoat finish, direct burial footing, 1/4" thick welded end cap with tap and threaded hole for 1/4-20 one end only.
2. 1/2" Thk. aluminum escutcheon plate plug welded from beneath with photoetched graphic on the face, 1/8" chamfered edge.
3. Slip plate/breakaway base assembly to comply with WSDOT Standard Plan G-24.30-01.
4. 1/16" thick aluminum **Pole-Safe® Skirt** (TRANSPO INDUSTRIES)
5. 3" Square Aluminum Tube.
6. Breakaway base assembly to comply with WSDOT Standard Plan G-24.60-04

City of Bainbridge Island

City Council Agenda Bill



PROCESS INFORMATION

Subject: 7:25 PM Resolution No. 2017-18 Adopting the Community Forest Management Plan (2006), AB 17-142 - Councilmembers Peltier and Medina (Pg. 29)	Date: 8/15/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-142
Proposed By: Council Tree and Low Impact Development Ad Hoc Committee	Referrals(s):

BUDGET INFORMATION

Department: Planning	Fund:
Expenditure Req:	Budgeted? Budget Amend. Req?

REFERRALS/REVIEW

:	Recommendation:
City Manager:	Legal: Yes Finance:

DESCRIPTION/BACKGROUND

The Community Forest Management Plan (*CFMP*) was completed in 2006. The *CFMP* describes existing conditions of trees and forests on Bainbridge Island, ecosystem services provided by trees and forests, and promotes sustainable forest conditions with recommendations for new programs, public outreach and education, incentives, and regulations.

Some of those recommendations have been implemented. The Council Tree and Low Impact Development Ad Hoc Committee has recommended that the *CFMP* be adopted by the Council to encourage further implementation of the *CFMP* recommendations.

The Council formally accepted the *CFMP* by approving Resolution 2006-07 on February 8, 2006.

RECOMMENDED ACTION/MOTION

I move that the City Council forward Resolution No. 2017-18 to the September 12, 2017, Consent Agenda for approval.

ATTACHMENTS:

Description	Type
□ Memorandum	Backup Material

- ▣ Resolution 2017-18
- ▣ Community Forest Managment Plan
- ▣ Resolution 2006-07

Resolution
Backup Material
Resolution



CITY OF
BAINBRIDGE ISLAND

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
MEMORANDUM

DATE: AUGUST 15, 2017
TO: CITY COUNCIL
FROM: JENNIFER SUTTON, AICP
SENIOR PLANNER
SUBJECT: RESOLUTION 2017-18: ADOPTING THE 2006 *COMMUNITY FOREST
MANAGEMENT PLAN*

I. BACKGROUND

The Community Forestry Commission, a former City Citizen Advisory Group, initiated the *Community Forest Management Plan (CFMP)*. The purpose of the *CFMP* is to guide and promote sustainable forest conditions on Bainbridge Island through education, incentives, and regulations on public and private property. The *CFMP* begins with a description of the “community forest” and then describes the state of forests and trees on Bainbridge Island, including a tree canopy inventory by zoning areas (p. 11) and watershed (p. 14). The estimated forest cover Island-wide calculated in 2004 was approximately 72% (p. 11). 2015 City LIDAR information shows that 70% of Bainbridge Island land area has tree canopy.

Chapters 4 and 5 of the *CFMP* focus on actions and policies to achieve the overall purpose of the plan, including setting tree canopy cover goals by zoning areas (p. 27). Some of the actions called for by the *CFMP* have been completed. For example, the City created a Heritage Tree Program and added “tree protection during construction” standards to the municipal code (BIMC 18.15.010.C). However other recommendations, such as hiring a City arborist and developing a proactive public education and outreach program, have not been implemented.

The City Council heard a presentation on the *CFMP* once it was completed. The Council formally accepted the *CFMP* with the approval of Resolution 2006-07 on February 8, 2006.

II. TREE AND LOW IMPACT DEVELOPMENT AD HOC COMMITTEE RECOMMENDATION

The Tree and LID Ad Hoc Committee recommended to the full City Council that the *CFMP* should be adopted. The City Council agreed with that recommendation at their July 18, 2017, meeting. Resolution 2017-18 accomplishes that goal.

III. NEXT STEPS

As mentioned above, the *CFMP* identifies several actions that the City can take to promote forest and tree health throughout Bainbridge Island. The adoption of the *CFMP* gives weight to the City working toward completing other relevant actions identified by the Plan.

RESOLUTION NO. 2017-18

A RESOLUTION of the City Council of Bainbridge Island, Washington, adopting the *Community Forest Management Plan* (2006).

WHEREAS, the citizens of Bainbridge Island recognize that our forests provide multiple ecosystem services including: providing habitat for a wide variety of plants and animals; regulating temperature for dwellings, streams, and shorelines; reducing air pollution; serving an integral role in our Island's water, carbon, and nutrient cycles; providing windbreaks; forestalling erosion by stabilizing slopes and soils; reducing and attenuating stormwater runoff; and enhancing physical and mental health; and

WHEREAS, our City's Comprehensive Plan has long recognized that the well-being of both human and ecological communities is very much connected to forests and natural resources; and

WHEREAS, as a designated Tree City USA, the citizens of Bainbridge Island take seriously their responsibility to protect our native vegetation and forests, and urgently desire that action be taken to strengthen and enforce policies that protect, steward, and sustain forests and native vegetation so that they can continue to provide important cultural, social, economic, and ecological benefits to our community; and

WHEREAS, the *Community Forest Management Plan* was completed in 2006 to promote sustainable tree and forest conditions on Bainbridge Island and includes a forest inventory and recommendations for additional programs, public education and outreach, incentives, and regulations; and

WHEREAS, the City Council in 2006 adopted Resolution No. 2006-07, through which the Council accepted the *Community Forest Management Plan* as a guide for long-term management of the community forest, and also indicated in that resolution that portions of the *Plan* may be adopted in the future; and

WHEREAS, since 2006, the City has accomplished several of the action items recommended by the *Community Forest Management Plan*, but other recommendations have not been implemented; and

WHEREAS, the City Council Tree and Low Impact Development Ad Hoc Committee has recommended that the *Community Forest Management Plan* should be adopted by the Council to promote implementation of *Plan* recommendations; now, therefore,

THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND DOES RESOLVE AS FOLLOWS:

Section 1. The *Community Forest Management Plan* (2006) is hereby adopted. The City will review *Plan* recommendations and work toward implementation of those recommendations through regulations, program development, and public outreach.

PASSED by the City Council this ____ day of September, 2017.

APPROVED by the Mayor this ____ day of September, 2017.

By: _____
Val Tollefson, Mayor

ATTEST/AUTHENTICATE:

By: _____
Christine Brown, City Clerk

FILED WITH THE CITY CLERK: August 11, 2017

PASSED BY THE CITY COUNCIL: September ____, 2017

RESOLUTION NO. 2017-18

Community Forest **Management Plan**

City of Bainbridge Island
2006

Prepared by:

City of Bainbridge Island Staff:

Marja Preston, AICP
Larry Frazier, AICP
Libby Hudson
Steve Morse
Theresa Rice

The City of Bainbridge Island Community Forestry Commission:

Michael Bonoff
Kathleen Wolf
John Van Den Meerendonk
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Ray Victurine
Brian Stahl
Dick Dearsley
Jennie Sheldon
Derek VanMarter

The Bainbridge Island City Council:

Darlene Kordonowy, Mayor
Bill Knobloch
Christine Nasser
Debbie Vancil
Nezam Tooloe
Deborah Vann
Jim Llewellyn
Bob Scales

GIS analysis of forest canopy cover conducted by Karl Johansen, 2005

Cover Photo by Kimball Andrew Schmidt pbase.com/kaschmidt

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Executive Summary

This is a critical time in the history of the Island. Quality stands of native forest still exist in and around the built features of the City's landscape. These forests provide innumerable benefits – economic, environmental and social – that improve the quality of life for every Island resident. However, if careful planning and management do not occur, these native forests will decline in the face of ongoing residential growth, land development and other landscape changes.

The purpose of the Community Forest Management Plan is to provide tools that ensure we maintain forests that provide all possible functions and benefits, maintaining the forest cover in residential areas and integrating trees as green infrastructure into the developing urban landscape.

An inventory of the community forest, compiled using 2004 aerial photography and GIS technology, was used to better understand the existing forest and to make informed recommendations. The 2004 inventory showed that:

- The Island is comprised of mixed deciduous and coniferous forests with the majority of trees on privately owned lands.
- Overall canopy coverage on the Island is estimated at 72%.
- Canopy coverage in Winslow is 42% and declining quickly. Tree canopy in Winslow consists mainly of trees on private property, as very few street trees currently exist.

The Community Forestry Commission worked with public and elected officials to compile the following recommendations for effective management of the community forest:

- Maintain long-term overall canopy coverage goals for the Island while retaining the native forest structure throughout the Island.
- Adopt an ecosystem-based approach to forest management, using this plan and incentives to conserve multi-functional urban greenways.
- Encourage retention of trees by creating incentives for incorporation of trees and native landscaping into new urban development.
- Develop tree preservation and replacement regulations to ensure that trees are integrated into the urban core areas.

Trees and forests define the visual character of the Bainbridge Island community. In a community values survey conducted in 2000, Islanders highlighted forested land as the main contributor to the Island's character. By establishing ambitious but attainable community forestry management goals, Bainbridge Island will distinguish itself as a leader in the region, committed to providing its residents with a quality lifestyle.

Aldo Leopold once wrote, "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." Sustainable urban forestry can lead to a community where trees are abundant, healthy, and highly valued by all. Like Leopold's vision for the biotic communities he knew, sustainable urban forestry can preserve the integrity, stability and beauty of our Island.

Introduction

The Community Forestry Commission of the City of Bainbridge Island was initiated in 2003 to steward the well-being of the Island's trees and forests. This management plan is the result of two years of work to inventory the forest resource and to develop management strategies that complement the changing patterns of land use that are occurring in the community.

Mission Statement

This plan will guide and promote sustainable forest conditions on Bainbridge Island through education, incentives, and regulation, on public and private property, in the village centers, neighborhoods and open spaces, for the environmental, social, and economic benefit of all Bainbridge Island residents.

Bainbridge Island is a distinctive urban area in that its boundaries are finite. A large portion of Bainbridge Island is forested and developed at low densities, with a significant amount of land in conservation. However, the population of the community has grown considerably in the last twenty years and it has become apparent that the community must plan for an equal amount of growth in the future. The intent of this management plan is to maintain the forest cover in the residential areas and to integrate trees as green infrastructure into the developing urban landscape.

This Community Forest Management Plan is intended to assist the City Council, City staff and citizens in implementing actions that ensure maintenance of forests that provide optimal functions and benefits. Without a comprehensive understanding of the value of our trees and forested areas, and a coordinated management plan to maintain and enhance them, we risk losing an enormously valuable resource that is at the heart of the Island's character. By adopting this plan, the City acknowledges the many contributions to our quality of life that are supplied by a healthy and vital community forest.

To fulfill the mission statement, the City of Bainbridge Island and the Community Forestry Commission are committed to providing education and technical assistance, implementing incentive programs, and revising regulations to more effectively support and reflect the goal of integrating trees and forests into the changing urban environment.

I The Community Forest

What is the Community Forest?

Community Forest:

Any individual trees, small stands of trees or forested areas, and associated understory plants, that are found growing in both natural and built environments, and which contribute important ecological, social and/or economic benefits to the community.

Bainbridge Island supports a wide variety of forest systems within one urban boundary. Large tracts of open space preserved through conservation easements such as the Hall and Close properties, and forested parks such as the Grand Forest and Fort Ward State Park make up the largest components of the native forest systems. Much of the forested land on the Island is privately owned on low-density residential land and is managed by individual homeowners or neighborhood associations. The forest in the town center is comprised of recently planted street trees; trees on private property; Waterfront Park; and the “Ravine”, which is a privately owned forested property that is protected through regulation.

This plan addresses all trees in our community, including native, naturally grown, and introduced or ornamental species. However, it is important to note that the multi-layered native forest also includes woody shrubs, ground cover, soils and root micchorizae that all function together as a living system. The inventory data used for this management plan is focused on the trees and the tree canopy. However, the management strategies included in this plan are intended to recognize that all components of the community forest contribute to the health of the environment, and that retaining the native understory plants in forested areas is essential to the health of the community forest.

History of the Community Forest

Trees and forests have played a key role in the lives of all peoples that have inhabited this unique Island environment. The Suquamish Tribe were the first known inhabitants of the Island and depended on the forests for their summer residence. The trees of the island were highly valued, providing habitat for game, bark used in woven clothing, and the wood for canoes.



When Captain Charles Wilkes first visited the Island in 1841, he found dense cedar forests, undisturbed, with the exception of a few Suquamish settlements. Within a few decades a number of lumber mills were established on the Island and by the early 1900's, much of the forest on Bainbridge Island had been removed. Strawberry farms dominated the center of the Island where land had been cleared (Swanson, 2002). What remains today is mainly second growth forest with very few old growth trees. These few trees stand testament to the history of the last two centuries and should be protected as part of our heritage.

As the Island's communities continued to expand, residential development began to dominate the area and much of the forested land was converted to residential lots. Nonetheless, substantial forest areas have been conserved in the community. Fort Ward State Park was established after the fort closed and protects a large forested tract along the south end of the Island. The Bloedel Reserve is now privately owned and managed for public use through a fee system. Other large forested properties, including Gazzam Lake Park and the Grand Forest Park, are managed by the Parks District for public use.



In 2001, the citizens of Bainbridge Island approved an eight million dollar bond measure for “acquiring or otherwise preserving forested areas, open space, wildlife habitat, farms and agricultural lands and creating new trails and passive parks....” To date, 13 properties have been acquired, including large tracts of forested land, such as the 12-acre Hall property, 6 acres of forest in the Lost Valley, 49 acres of forested land on the Peters property and 7.5 acres of forested area at the Yama property. These forests are managed by the Parks District. Specific funds have not yet been set aside for comprehensive management of these properties.

Benefits of the Community Forest

Scientific studies of the past several decades reveal that forests provide a great variety of benefits and services which indirectly provide high levels of economic return to communities.

Healthy trees and adequate forest cover provide a variety of ecological functions. Collectively, the urban forest can be viewed as a green infrastructure system, just as roads, sewers and stormwater systems comprise a city's gray infrastructure. However, trees are living entities and have basic biological requirements for survival and growth. In an urban setting, the trees must be actively managed and protected to maintain their health, function, beauty and value.

Benefits are experienced at different scales. Some benefits are realized at an individual scale. For instance, research shows that views of nature reduce stress and help people heal more quickly from both physical and emotional injuries. Some benefits impact our entire community. Forest stands enable rainwater to percolate into aquifers better than impervious surfaces do, enhancing the water supply. The following are examples of the many services and benefits that forests provide in built settings:

Trees and forests improve air quality by absorbing carbon dioxide during the process of photosynthesis and producing oxygen as a by-product. Tree leaves also intercept and remove other pollutants and particulate matter from the air.

- A large, healthy tree can produce enough oxygen each day for 18 people.
- An American Forests study of the Puget Sound area found that tree canopy cover removed 38,990 tons of air pollutants in one year (American Forests, 1998).

Trees and forests save energy by shading our homes and offices, streets, parking lots and other paved areas. Trees cool the air as their leaves transpire water.

- Trees can provide a 4% reduction in annual heating and cooling costs (McPherson 2002).
- The 200,000 leaves on a healthy 100-foot tall tree can take 11,000 gallons of water from the soil and breathe it into the air in a single growing season (Head 2001).

Trees and forests reduce stormwater runoff by intercepting rainfall and releasing it slowly. This reduces runoff and cuts peak flow rates that cause flooding and burden stormwater systems.

- The leaves and branches of trees intercept 7 to 22% of precipitation, hold it, and then release it slowly back into the atmosphere.
- The value of trees can be measured by the reduction in construction and material costs for stormwater control structures and systems. One study has shown that for every tree, 2 cents in water control costs are saved for every gallon of water intercepted during a twelve-hour storm. In a medium-sized city, this equates to a 17% reduction of 11.3 million gallons, and a savings of \$226,000 (Head 2001).

Trees and forests improve water quality and reduce soil erosion and decrease the amount of sediment that enters streams and Puget Sound.

- The vegetation of forested streamsides helps disperse the energy of heavy rain so that soil particles are not carried into streams.
- Riparian forests remove, hold, or transform nutrients from fertilizers, sediments, and other pollutants. Healthy root systems prevent soil compaction and retain valuable surface layers of organic soils.

Trees and forests provide wildlife food and habitat important to the survival of insects, amphibians, birds, mammals and other wildlife.

- Many species depend on trees and the forest for food and shelter. Bald eagles and osprey nest in large conifers and use other tall trees along the shoreline for roosting. Tree corridors provide shelter for deer, squirrels and other small mammals, birds and amphibians.
- Forested riparian corridors contribute to the health of aquatic ecosystems, providing shade to streams, and shelter to wildlife.
- Riparian or “streamside” forests control fluctuations in water temperature and maintain varied, but stable light levels. Light levels affect the type and amount of algae present in a stream, and water temperature affects salmonid health. Animals in streams depend on litterfall, as the decay of woody debris releases food and nutrients into the aquatic system.

Trees and forests enhance the quality of life for our residents by creating environments that benefit peoples' health and functioning.

- Physical activity is directly linked to good health. Trees and forests create a natural setting for recreational activities such as walking, jogging, bicycling, golfing, and bird watching.
- Trees contribute to higher job satisfaction and lower absenteeism when employees can view trees or landscapes from their workplace (Kaplan, 1993).
- Routine activity in parks with trees reduces Attention Deficit Hyperactivity Disorder (ADHD) symptoms in children (Taylor, 2001).
- Views of nature from hospital windows also provides a measurable acceleration of the healing process following physical or emotional injuries (Ulrich, 1991).



Trees and forests enhance community economics by contributing to increased property values and enhancing commercial districts.

- Consumers shop more often and longer and are willing to pay 9-12% more in well-landscaped business districts (Wolf, 2005).
- Having trees increases property values by adding to the visual appeal of a property. One study found that each large tree in the front yard was associated with a 1% increase in sales price (Anderson and Cordell, 1988).
- Residences adjacent to quality open space gain 10-20% in value (Crompton, 2001).
- Rental rates for landscaped commercial properties were 7% higher compared to properties with no plants (Laverne, 2003).

2 State of the Forest

One of the Island's greatest assets is that it is well forested, with large parcels of native forest protected by public ownership or conservation easements. The trees and the forests provide the Island with a sense of place and pride, giving structure and character to the community.

Islandwide Forest Cover

A vegetation inventory was conducted to provide baseline data to support the analysis and subsequent policy formulation found in this management plan. The City acquired 0.5-foot pixel resolution color orthophotography in late 2004 (aerial photography flown October 2004). Detailed analysis of the orthophotography resulted in canopy cover estimates for the various land use zones in the community. This information, as well as the preliminary data from the *City of Bainbridge Island Population Allocation Study for the Year 2025, Phase I: Research and Analysis, September 2005*, was used to determine canopy cover goals for the community.

Forest Cover

The estimated forest cover throughout the Island is 72%, based on data acquired from 2004 aerial photography. Forest cover over the various zones in 2004 was estimated as follows:

Low Density Residential (R-2, R-1, R-0.4)	75%
High Density Residential (R2.9 through R-I4)	47%
Neighborhood Service Centers	27%
Mixed Use Town Center/High School Road	42%
Winslow Core	29%

American Forests, a nonprofit forest conservation organization, notes that the potential for overall tree cover in urban areas ranges from 60-80% and recommends that cities set canopy cover goals for different land use areas of a city. Canopy coverage in all zones on Bainbridge Island currently exceeds the goals recommended by American Forests¹, as indicated in the table above. However, development is occurring rapidly in many areas of the Island and canopy coverage is declining, especially in the Winslow central core area. It is estimated that forest canopy in the Winslow core has declined by almost 2% since the 2004 data was collected.

¹ American Forests, <http://www.americanforests.org/>, recommends the following canopy cover goals for metropolitan areas in the Pacific Northwest: 50% cover in suburban residential zones, 25% in urban residential zones, and 15% cover in central business districts.

The 2025 Population Allocation Study indicates that 1,242 new residences are expected in the low and high density residential areas. If each new anticipated dwelling unit resulted in one-half to two-thirds of an acre of clearing, total forest loss in the zones is estimated between 600 and 800 acres. This plan recommends canopy cover goals of 70% for the low-density residential zones and 50% for the high-density residential zones. In order to attain these goals, less than 770 acres of forest can be lost in those areas. Therefore, this plan recommends incentives and education to encourage landowners to clear less than fifty-percent of the forested areas on their individual properties.

<u>Zone</u>	<u>Cover Goal</u>
Low Density Residential	70%
High Density Residential	50%
Neighborhood Service Centers	35%
MUTC/High School Road	35%
Winslow Core	35%

The City of Bainbridge Island Comprehensive Plan focuses much of the anticipated growth in the Mixed Use Town Center (MUTC) and Winslow Core zones. Canopy cover goals address the expected growth in these areas, anticipating the possible decline of tree cover in the MUTC through development of treed lots, but also anticipating increased canopy from newly planted street trees.

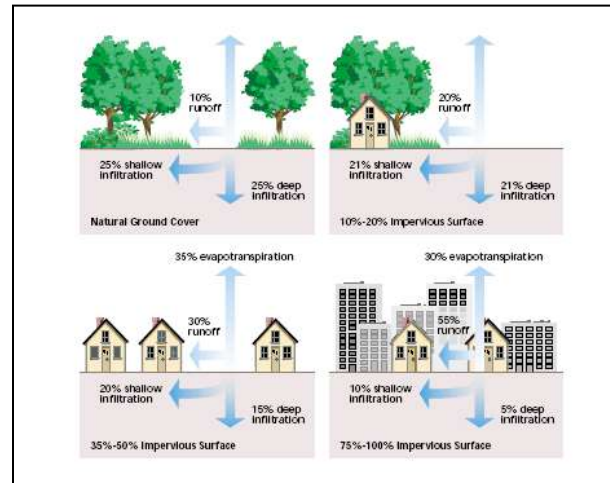
The goals show an increase in tree canopy in the Winslow Core area. This is based on the assumption that much of the available land in the Core is currently impervious surface (either buildings or pavement), and that implementation of a new street tree program may result in increased tree canopy in this district. The same is true for the Neighborhood Service Centers.

Watershed Forest Cover

Bainbridge Island is made up of twelve distinct watersheds (see map on Page 14). Watersheds are land areas that drain surface water and groundwater to a downstream water body such as Puget Sound. High ridges and peaks in the landscape determine the direction of water flow and so serve as watershed boundaries.

Our Island community is unique in that all of our watersheds lie within City boundaries, thus our community can effectively manage surface water quantity and quality. All drinking water for the Island is provided by underground aquifers, which are recharged by surface water that percolates into surface soils and then infiltrates to deeper soil and rock layers.

Forest cover in watersheds is important for two reasons. First, trees and forests cleanse surface water by filtering and extracting pollutants and sediments. Vegetation cover also prevents rainfall from moving quickly over the landscape and accumulating into destructive peak flows. Having trees in all areas of the watershed, rather than only within stream corridors, is crucial to maintaining healthy streams and shorelines and to sustaining our drinking water supply.



Impervious cover in a watershed results in increased surface runoff. As little as 10 percent impervious cover in a watershed can result in stream degradation. Source: FISRWG 2001.

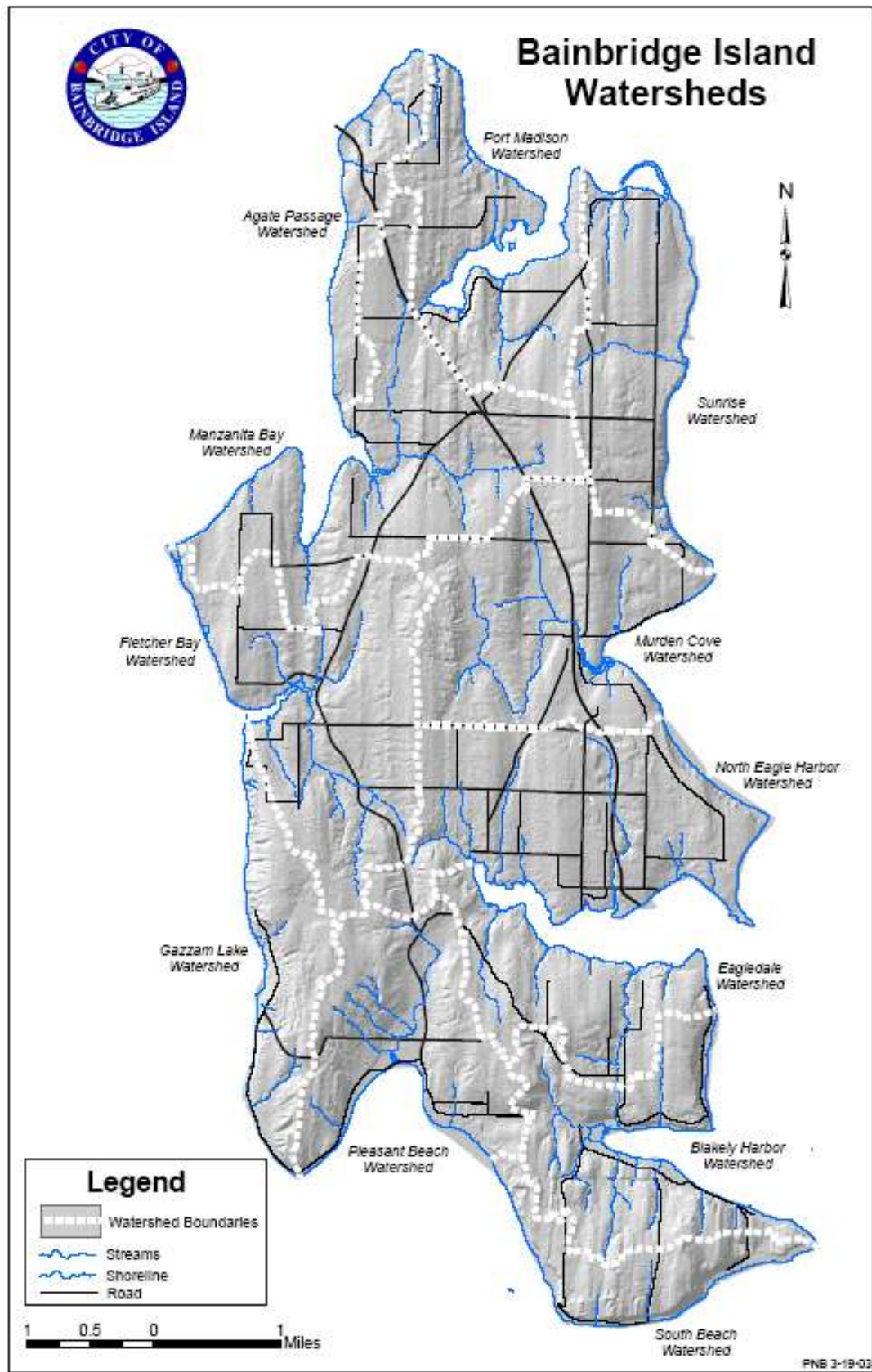
As development occurs in the community, much vegetation is typically removed and replaced by impervious surfaces. The combination of forest canopy loss and increased impervious surfaces results in additional runoff, higher stream temperatures and more pollutants in streams and on the shore. The degree of water loss to runoff and increased evapotranspiration can be seen in the above diagram that illustrates the effects of increases in the quantity of impervious surface in the landscape.

Watershed forestry information can be used during the planning process, to monitor impervious surface cover within watersheds and create programs to maintain adequate levels of forest cover that will help protect and retain the watershed systems of the Island.

The 2004 forest canopy cover data was used to calculate forest canopy for each watershed. Canopy cover rates vary from 57% to 84%. The North Eagle Harbor watershed, where Winslow is located, contains the lowest cover rate, reflecting its more urbanized condition.

Watershed Forest Cover	
The 2004 forest canopy inventory data shows canopy coverage for each watershed on the Island as follows (The figure on the following page illustrates watershed boundaries):	
Agate Passage Watershed:	75%
Port Madison Watershed:	80%
Manzanita Bay Watershed:	71%
Sunrise Watershed:	76%
Fletcher Bay Watershed:	77%
Murden Cove Watershed:	69%
North Eagle Harbor Watershed:	57%
Gazzam Lake Watershed:	84%
Eagledale Watershed:	69%
Pleasant Beach Watershed:	73%
Blakely Harbor Watershed:	84%
South Beach Watershed:	72%

This data provides important baseline information for future policy and actions. Retention of existing forest that has mature trees and native soils is the best way to achieve water quality and other environmental benefits. During site development large trees may be replaced by small trees that will take decades to reach a size sufficient to generate comparable benefits. In addition, earth moving associated with development can cause erosion or removal of topsoils, compaction of the subsoils where water infiltration occurs, and elimination of the small depressions and water storage areas that aid natural water quality processes. This plan proposes policies and actions for maintaining water quality through forest retention.



Street Tree Canopy Cover/Diversity

Trees in public spaces are an important element of the urban forest. Street trees:

- provide shade and cover from the weather;
- act as a barrier between traffic and sidewalks;
- have traffic calming effects;
- encourage pedestrian activity; and
- enhance the visual appeal of residential and commercial districts.

Trees in civic spaces, such as those adjacent to civic buildings (such as the library or city hall), on school grounds, in plazas and in more formal park spaces, are often planted to commemorate significant events or people and may serve as memorials in times of loss. Aesthetically, public trees are a mark of the identity and character of the community. Symbolically, they represent the cultural and natural heritage of a place.

Individual street and civic trees within the Winslow core area were inventoried to prepare this plan. Two goals guided the assessment.

First, an evaluation of individual trees and species distribution was needed. Knowledge about the age of components of the urban forest guides management strategies, as young trees have different maintenance needs than mature ones. Species diversity is also important because a prevalence of any single species places the forest at risk for disease (a lesson learned from Dutch elm disease).

The second goal of the assessment was to determine health and condition of the trees. Trees that are well-maintained and healthy generate the greatest level of benefit for both the environment and aesthetics. Numerous studies have demonstrated that costs applied to tree maintenance are a net gain for community investment.

On Bainbridge Island, street tree canopy within the Mixed Use Town Center area is minimal, with a total of 222 small to medium-sized street trees located in street rights-of-way (See Appendix A). The existing street trees are young and most have been planted since 2000. Several large trees are located along Winslow Way. These trees are planted in bulb-outs and most of the trees have outgrown their limited root space.

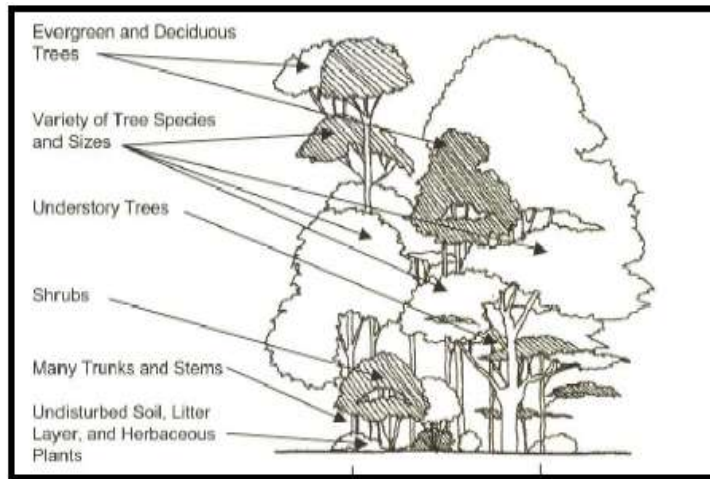
The City does not currently have a comprehensive street tree planting or maintenance plan and there are currently no requirements for planting street trees. Many of the street trees have been planted by private property owners, and the care of these trees depends on the property owners. Trees are also planted by the City during road or infrastructure installation. Tree pruning and maintenance is currently carried out as needed by the Operations and Maintenance Division of

the City's Public Works Department. Utilities occupying the public right-of-way are required to maintain vegetation clearances for existing power lines according to state and federal requirements. Tree pruning and maintenance is often performed by these utilities.

Civic trees are a combination of planted ornamental species, and retained native species. Data collection about this urban forest component, including significant trees, needs to be completed. There is currently no plan for adding to or managing this important community asset.

Forest Structure

The structure of the forest influences the integrity and function of the forest. A forest typically becomes more complex in structure as it matures. Early successional forests typically have lower canopy, fewer canopy layers, and large patches of single species of plants. Over time, pioneer plants grow taller, but are more diversified in height. As trees die, more sunlight reaches the forest floor, encouraging the growth of new saplings of a different group of species. Fallen trees provide essential nutrients to the forest floor. Dead trees left standing may become snags, providing essential habitat to many species. Eventually, tree stands become mixed in species composition and the understory becomes more diverse as well.



Soils. Soils are the foundation of the community forest. Soils on Bainbridge Island are typically glacial till, with shallow bedrock evident on the south end of the Island, especially in the Fort Ward area. The native soil types of the Island, including Alderwood, Harstine, Kapowsin, and others are well suited to supporting Douglas fir, Western hemlock, Western red cedar and red alder (SCS, 1980).

Soils in the urban environment are generally highly disturbed as development can result in erosion or removal of topsoil, compaction of subsoils and alteration of wetlands or natural stormwater storage areas. The resulting quality of urban soils for forest and tree growth is poor. Compacted soils limit root growth and poor drainage can cause tree roots to drown. Special attention should be paid to improving or preparing soils for tree planting in the built environment.

Overstory. The overstory of the community forest was surveyed using a combination of digital aerial imagery obtained in October 2004 and ground observation. Based on this analysis, the Island's overall tree canopy is estimated at 72%. Predominant tree species outside the town center are alder (*Alnus rubra*), bigleaf maple (*Acer macrophyllum*), Douglas fir (*Pseudotsuga menziesii*), Western red cedar (*Thuja plicata*), Western hemlock (*Tsuga heterophylla*), and Madrona (*Arbutus menziesii*).

Understory. The understory vegetation of the forest provides habitat for wildlife and contributes to the overall functions of a healthy forest. Common native understory species in Bainbridge’s forests include vine maple (*Acer circinatum*), salmonberry (*Rubus spectabilis*), Indian plum (*Omelaria cerasiformis*), elderberry (*Sambucus racemosa*), oceanspray (*Holodiscus discolor*), huckleberry (*Vaccinium ovatum*), sword fern (*Polystichum munitum*), salal (*Gaultheris shallon*), Oregon grape (*Mahonia aquifolium*) and trailing blackberry (*Rubus ursinus*).

A common practice in forested open space or green belts is underbrushing. Trees are retained, but landowners wish to tidy up the forest or enhance views. The understory is typically made up of multiple layers of varied height vegetation. Removing all but the tallest trees severely compromises forest health and reduces the benefits that are associated with forests. Minor vegetation removal does little damage, but removal of all “brushy” vegetation down to bare soil endangers the health of remaining trees.

Managing our forests for better forest structure will assure that, long-term, they will be sustainable and provide the highest level of benefit. Focusing on managing urban soils, incorporating species diversity in tree planting and encouraging the planting of native understory plants will result in a healthier urban forest.

Forest Health

The community forest on Bainbridge Island is a mosaic of highly altered landscapes and fragments of remaining native ecosystems. The condition of the trees in the forest is an indicator of the health of our urban ecosystem. When the forest is healthy, the Island’s ecological systems, including the soil, air and water, are also healthier.

Many factors negatively affect the health of the community forest, including fragmentation, reduced forest structure, invasive species, insects and disease, pollutants, increasing impervious surfaces and construction damage. The strategies outlined later in this management plan are intended to reduce the effects of these threats and to produce a healthier and more functional community forest.

Forest Fragmentation

As land is developed, contiguous forest areas are divided into smaller fragments. Fragmentation increases the proportion of edge to interior habitat. Habitat for interior dwelling species is diminished and invasion of non-native plants is more likely.

Remaining forest fragments are generally located in areas that are difficult to develop, such as wetlands, stream ravines or steep slopes. These fragments are stressed by nearby development and land use activities. Construction compacts root zones and alters drainage patterns. Air pollutants damage tree foliage and impair photosynthesis, making trees more susceptible to pest outbreaks, disease and drought. Forest fragments are also stressed by deer overbrowsing, dumping of trash and compaction from foot traffic (Cappiella, 2005).

The Bainbridge Island Wildlife Corridor Network Study (December 2000) designates upland and riparian wildlife corridors throughout the community. The study proposes to counter the increasing fragmentation of the Island's forests by incorporating existing large patches into the proposed wildlife corridor network, providing smaller habitat areas within the corridor network and maintaining or enhancing the quality of wildlife habitat in the designated corridors. Preservation of the wildlife corridors may not be required depending on how developments are configured. Therefore, incentives are needed to encourage private landowners to protect, expand and enhance the existing corridors.

Increased Impervious Surface and Construction Damage

Development and construction can result in increased impervious surface near remaining forest fragments, compromising root systems and elevating soil pH. Tree damage is often sustained as construction vehicles cut into tree roots or trunks. Additionally, tree roots often conflict with utilities that are installed during construction, causing a long-term decline in tree health.

Insects and Tree Disease

Trees are more susceptible to pests and disease when trees are stressed by crowding, construction damage, or weather conditions, such as drought. Examples include laminated root rot (a fungus that infects conifers) and insect pests such as gypsy moths, longhorn beetles and pine beetles that can invade large areas of forest land.

Invasive Species.

Another major threat to the health of the Island's forests is the introduction of non-native, invasive species. The most widespread is English ivy (*Hedera helix*). Ivy smothers the ground layer vegetation and ultimately carpets the forest floor. Ivy grows up tree trunks, and the heavy weight of the plant can cause breakup of tree trunks and branches. English holly (*Ilex aquifolium*), Himalayan blackberry (*Rubus discolor*), Scot's broom (*Cytisus scoparius*) and Japanese knotweed (*Fallopia japonica*) are other invasive and problematic species threatening the health of the Island's forests and other ecosystems.

Invasives Control. Ivy is the most prevalent invasive plant presenting a serious threat to the forests all over the island. Ivy control is labor intensive and can be accomplished with repeated and consistent efforts.

Knotweed is another non-native, invasive plant that has emerged as a concern on Bainbridge Island in recent years. Knotweed is a rhizomatous perennial introduced from Asia to Europe, and from Europe to the United States in the mid-nineteenth century as an ornamental and fodder plant. Knotweed grows to a height of 2-5 meters, with bamboo-like stems, arching branches and clusters of creamy white flowers appearing late in the season. The plant grows in moist areas and is becoming a serious threat as it forms a monoculture and chokes streams and wetland habitats. This invasive plant has just begun to establish itself on Bainbridge Island and has been targeted as a priority for removal and control before it becomes too prevalent.



Large Knotweed Patch

Invasive species removal efforts are labor intensive. Herbicides are effective to a limited extent, and must be applied carefully and repeatedly to be effective. Other methods include repeated stem removal at the ground, mowing, and/or smothering with heavy plastic and organic mulch materials. In many communities invasives removal is achieved using volunteer groups and frequent work parties.

3 Current Policies/Practices

Existing Policies and Resources

Community forest management in the City of Bainbridge Island is currently achieved through the use of state and local policies and regulations. Very few established City educational programs, incentives or defined standards for management of public or private trees and forests currently exist. This section describes the management tools now available to the City and the following Section 4 recommends policies and actions that will form a comprehensive management approach.

The City of Bainbridge Island Comprehensive Plan, adopted in 2004, outlines City policies on trees and the community forest. The Community Values Survey, conducted in 2000, indicates that Island residents feel forested land contributes greatly to the character of the Island. In response to these survey results, the City developed the Environment Element of the Comprehensive Plan to include Urban Forestry policies.

This Community Forest Management Plan is intended to serve as a supporting document to the Environment Element of the Comprehensive Plan, providing a comprehensive and more detailed set of goals, policies and actions for managing and enhancing the Island's trees and forests.

The Bainbridge Island Municipal Code establishes the regulations that implement the policies of the Comprehensive Plan. The recommendations in this Management Plan for new or revised regulations are intended to be incorporated into the municipal code. The following sections of code are currently in use by the Planning and Public Works Departments:

Landscape Requirements. Chapter 18.85 of the Bainbridge Island Municipal Code outlines requirements for tree retention and landscaping for new development. Generally, new developments must retain 15 percent of the significant trees or 30 percent of the existing tree canopy. This regulation often results in the preservation of inappropriate and potentially hazardous perimeter trees or small stands of trees subject to windthrow. New development in the Core District and Ferry Terminal Overlay District is not required to preserve existing trees.

Flexible Lot Subdivision Design. Title 17 of the Bainbridge Island Municipal Code requires that short plats and subdivisions cluster homesites or retain 25 percent of the original parcel in open space, giving priority to contiguous forested areas. Vegetated buffers along roadways are also required to be retained during division of land. This has resulted in the preservation of much privately owned and maintained forest land. The Wildlife Corridor Network Plan (City of Bainbridge Island, 2000) encourages voluntary preservation of riparian and upland wildlife corridors during subdivision of land.

Land Clearing. Chapter 15.18 of the Bainbridge Island Municipal Code requires that a property owner obtain a permit to clear more than six significant trees or 2,500 square feet of land. A land owner can clear up to 5,000 board feet of timber under this permit.

Vegetation Management. Chapter 16.22 of the Bainbridge Island Municipal Code regulates managed forest lands as well as conversion of forest lands to residential use. This chapter requires that landowners clearing more than 5,000 board feet of marketable timber obtain a Vegetation Management Permit from the City, as well as a Forest Practices Permit from Washington State Department of Natural Resources. Through the City permit process, the landowner is restricted to cutting a percentage of the trees on the property and is required to provide perimeter buffers.

Critical Areas. Chapter 16.20 requires retention of trees and native plants in all wetlands, as well as in all stream and wetland buffers. Significant amounts of tree canopy are preserved through implementation of the regulations in this chapter.

Analysis of Gaps in Current Policies and Resources

This plan recommends that the Department of Planning and Community Development, in cooperation with other City departments, embark on a program to implement forestry management strategies, new education and outreach projects, and innovative community forestry incentive programs. The Community Forestry Commission recommends that existing policies and regulation pertaining to tree planting and preservation be revised. This section briefly discusses the gaps in current programs and policies.

- Regulations pertaining to preservation and removal of trees are scattered throughout several chapters of the Bainbridge Island Municipal Code. In order to facilitate review of tree-related projects, the tree-related regulations should be incorporated into one separate chapter of the code, and cross-referenced where appropriate.

- The tree retention requirements found in Chapter 18.85 (Landscape Requirements) do not apply to the urban center of the Island. Preservation of trees within new developments in the Core District and the Ferry Terminal District is voluntary only and little guidance is provided for appropriate construction activities adjacent to retained trees. An education and incentive-based policy should be drafted to encourage land owners to preserve significant or distinctive trees. Best construction practices should be required to ensure that trees are preserved in appropriate locations and protected from damage during construction.
- The Vegetation Management chapter (BIMC 16.22) was written with the intent of regulating forest lands that are managed for harvest yields or other productive uses. Although a few vegetation management permits are issued each year for forest management, most applications reviewed through this chapter involve conversion of forest lands to residential uses. The Vegetation Management chapter is confusing with regard to these types of applications and should be clarified.
- The preservation of forested open space required through the Flexible Lot Design process is effective in maintaining canopy cover in the residential areas. However, in order to obtain the canopy cover goal for low density residential areas, incentives should be provided for landowners to plant or preserve trees on individual lots and to use low impact development (LID) techniques.
- Code enforcement on illegal tree clearing incidents requires replanting of trees based on the Significant Trees and Tree Stand Replacement section of the Landscape Requirements chapter (BIMC 18.85.050(C)). This section requires replacement at a ratio of 1.5 inches diameter for every one-inch diameter of removed tree. Failure to replace the trees results in a fine of up to three times the value of the trees removed.

The fine for illegal clearing under the Vegetation Management chapter is \$20,000 for each acre of forest cut. This fine has rarely been enforced. Alternate penalty provisions should be created. For example, lesser fines, or fines more closely tied to the number and size of trees removed, might serve as more effective and more enforceable deterrents to nonpermitted clearing.

- The City does not have a street tree plan or guidelines for planting or managing street trees. A requirement for planting street trees with new development in the Mixed Use Town Center and for all newly created streets in the City should be developed. A voluntary program can be developed to encourage street tree planting in established neighborhoods. A street tree plan that includes appropriate tree species selection, practices, and maintenance techniques is needed.

- A Best Management Practices Manual is needed to provide guidelines for maintaining healthy trees and tree stands. Best Management Practices can then be applied by City crews when work on public lands occurs near trees or forests. The manual will also be useful for City employees when they review or inspect private construction or development projects.

4 Forests in the Future: Policies, Standards & Actions

Policies

The Community Forestry Commission developed forestry policies for the City of Bainbridge Island Comprehensive Plan. Those policies are reflected in the policies defined in this plan. The following pages detail standards and actions for each of the six policies that will provide a plan for better management of the community forest through education, incentives, and regulation.

Policy 1: Protect, restore and improve existing vegetation that has environmental, wildlife habitat and aesthetic qualities to include tree groves, significant tree stands, and forested hillsides and vegetation associated with wetlands, stream corridors and riparian areas.

Policy 2: Initiate and promote urban tree management practices in high density, mixed use areas in order to improve quality of life for all district users and create more livable conditions, to include visual amenities, environmental services and economic development.

Policy 3: Develop a community-wide program to enhance the community's awareness of the value of trees and the urban forest.

Policy 4: Encourage the use of Best Management Practices to protect and enhance community trees and forests.

Policy 5: Control and prevent establishment of invasive species that are destructive to forest health.

Policy 6: Periodically review Island-wide forest conditions and revise policies and actions to address changing or emerging circumstances and needs.

Policies, Standards and Actions

Policy I: Protect, restore and improve existing vegetation that has environmental, wildlife habitat and aesthetic qualities to include tree groves, significant tree stands, and forested hillsides and vegetation associated with wetlands, stream corridors and riparian areas.

Standard I.I Maintain or achieve optimum tree canopy cover levels in all zones of the Island.

In order to ensure that forest canopy in our community is maintained or increased, the Forestry Commission recommends the following minimum canopy coverage limits/goals:

<u>Zone</u>	<u>Existing Cover</u>	<u>Cover Goals</u>
Low Density Residential (R-2, R-1, R-0.4)	75%	70%
High Density Residential (R2.9 through R-14)	47%	50%
Neighborhood Service Centers	27%	35%
Mixed Use Town Center/High School Road	42%	35%
Winslow Core	29%	35%

Actions

- a. Identify priority areas for preservation of forest lands through conservation easements or purchase.
- b. Use this information for comprehensive planning and rezoning.
- c. Promote retention of native tree canopy in all project development review, and during construction.
- d. Develop policies, incentives or regulations that result in native forest retention on individual residential building lots.
- e. Require planting of street trees that are compatible with existing infrastructure to replace tree canopy lost during development.
- f. Develop educational materials to inform landowners about the benefits of tree canopy and management approaches that can be applied to private property.
- g. Promote restoration of native forests on sites that have been cleared or harvested.
- h. Monitor the forest canopy every five years using the 2004 survey as baseline data.

Standard I.2 Effectively manage publicly owned forest lands.

Much of the forest land on the Island is publicly owned or maintained by the Washington State Parks Department, the City of Bainbridge Island and the Bainbridge Island Parks and Recreation District. The Bainbridge Island Parks District has recently been given responsibility for maintenance of lands purchased through the Open Space Commission. Management plans have not been developed for these properties and funds for long-term maintenance of the newly acquired properties have not yet been specifically allocated.

Actions

- a. Develop site-based management plans for properties purchased by the Open Space Commission.
- b. Identify costs for long-term management of Open Space properties and allocate appropriate funds.
- c. Develop a long-term tree management plan for Waterfront Park.
- d. Work with the Parks and Recreation District to implement Best Management Practices for trees and forests on forest lands managed by the Parks District.
- e. Prevent unnecessary forest loss on all public lands from any private or public activities, including public works and utilities projects.

Standard I.3 Restore forested areas along scenic roadways, wetlands, stream or riparian corridors, and along ridges and hillsides.

Actions

- a. Conduct a scenic corridor analysis to identify and promote vistas that are enhanced by forests and vegetation.
- b. Develop incentives for private landowners to plant trees and restore native vegetation on private property, especially along scenic roadways, on ridges and hillsides and in critical areas.
- c. Work with the Washington State Department of Transportation to maintain high quality forest stands along SR-305.

Standard I.4 Maintain adequate forest canopy cover in all areas of the Island's watersheds, with particular attention to wetlands and riparian corridors.

Actions

- a. Integrate watershed forest canopy and impervious surface data into future planning efforts. For instance, plan for higher densities in watersheds that are not threatened by high impervious surface levels.
- b. Continue to update data on forest canopy and impervious surface.

Policy 2: Initiate and promote urban tree management practices in high density, mixed use areas in order to improve quality of life for all district users and create more livable conditions, to include visual amenities, environmental services and economic development.

Standard 2.I Create and maintain a healthy and diverse street tree canopy, including tree canopy on all civic properties.

The City does not have a street tree plan or a requirement for planting of street trees. The City should adopt a policy requiring planting of street trees during development of subdivisions and for all properties in the urban environment. A comprehensive street tree maintenance program should then be developed to ensure that the street trees and trees on civic properties are properly pruned and cared for.

Actions

- a. Develop a street tree plan that identifies a long-term strategy for street tree selection, siting, replacement and maintenance.
- b. Provide funds for successful implementation of the Street Tree Plan.
- c. Require street tree planting during development of properties in the urban area and for subdivisions.
- d. Develop street profiles that include trees and create more opportunities for tree planting in the public right-of-way. Include innovative standards for adequate tree planting facilities so that root systems neither fail nor interfere with utilities in the right-of-way.

Potential Incentive Programs

Heritage Tree Program

A Heritage Tree Program is being developed to recognize and assist in preserving historic, culturally significant or otherwise unique trees in the community.

Exceptional Trees

Exceptional trees are trees of significant size that should be preserved on private property. Whether a tree can be considered exceptional depends on its species and its size.

Transfer of Development Rights (TDRs)

A Transfer of Development Rights program is recommended to allow density to be transferred from forested properties to other areas on the Island, thereby creating an incentive to preserve forests on private property.

Standard 2.2 Encourage property owners to maximize the preservation of native forest communities and to maintain and enhance the connectivity of tree groves. This should be accomplished using appropriate site design and construction methods as well as open space dedication of open space.

Incentives and education should be provided in order to encourage property owners to preserve trees and native forest communities during design of new developments in the urban core. Incentives are already available in the code to encourage provision of public amenities or affordable housing in the mixed use zones. The Community Forestry Commission recommends the implementation of an incentive option for property owners to obtain additional density by preserving Heritage trees, exceptional trees and significant tree groves in the Mixed Use Town Center and the Urban Multi-family Zones.

Practical design options using a density bonus obtained through tree retention might include an increased height allowance of one story to accommodate the added density and/or a reduction of required parking spaces. This approach would not only preserve individual trees or tree stands, but would serve to decrease the amount of impervious surface created in the urban area.

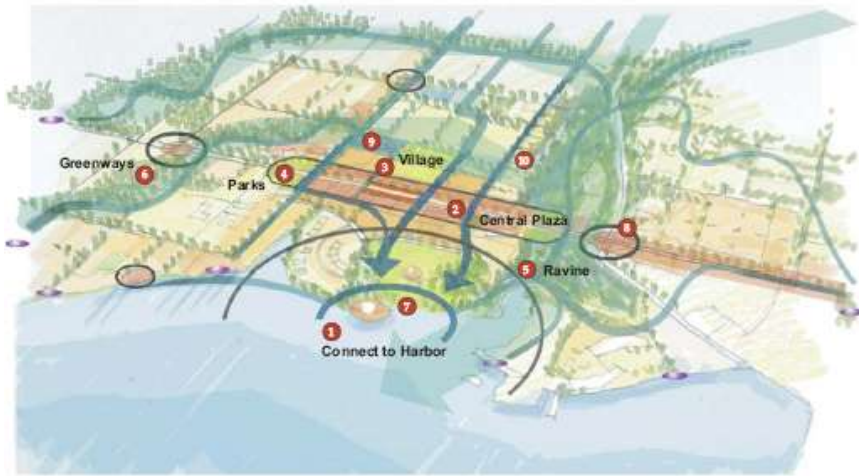
The Community Forestry Commission has defined and is in the process of mapping “Exceptional” trees in Winslow. It is recommended that incentives be provided for retention of exceptional trees during development.

Actions

- a. Promote tree retention as a goal for all new development using incentives, education and regulations.
- b. Encourage retention of groves of trees with native understory rather than scattered, individual trees, as stands of native vegetation generate more benefits than isolated trees.
- c. Develop incentives to preserve existing trees and native vegetation in site design of new development in the urban area.
- d. Allow an increase in allowed density as an incentive for preserving Heritage trees, exceptional trees or tree stands.
- e. Allow increased height to accommodate increased density resulting from tree preservation.
- f. Allow a reduction in parking requirements to encourage tree preservation.
- g. Implement a Heritage Tree program to identify, protect and promote historically or culturally significant trees or tree stands.
- h. Provide for Transfer of Development Rights to encourage preservation of forested properties on the Island and especially in the more densely developed areas of the community.
- i. Periodically identify and map exceptional trees in the urban area and make the information available to the community and to planners for use during site plan reviews.

Standard 2.3 Expand and Implement the Urban Greenways Plan

In order to preserve or enhance forests in the more densely developed section of the Island, an urban greenways plan for the urban area should be formalized. This plan will expand on the policies listed in the Greenways section of the Comprehensive Plan. Potential multi-functional green corridors or greenways were identified using existing aerial photographs and property information to identify green corridors through the urban mixed use town center, from Sportsman's Club Road to SR-305 and from Eagle Harbor to New Brooklyn Road. The figure below is a conceptual illustration of the potential green corridors.



The green corridors would connect watershed streams with Eagle Harbor and connect parks with open spaces and with schools. The green corridors act as “green” infrastructure, providing tree canopy in the highly urbanized area of the City, and reducing the need for stormwater or “gray” infrastructure. In addition, low-impact trails through the corridors could be developed to enhance non-motorized transportation options through the urban area, connecting people with green space.

Actions 2.3

- a. Finalize a Multi-Functional Green Corridor Map and Plan.
- b. Develop incentives for private land owners to preserve designated green corridors in the urban center. Incentives could include bonus density, stormwater fee reductions, additional building height, or reduced parking requirements.
- c. Establish a fund to purchase and maintain greenways.
- d. Prioritize undeveloped properties along the corridors for acquisition or conservation easements.
- e. Work with the Non-motorized Transportation Committee and the Watershed Council to plan for multi-modal trails through the corridors.
- f. Promote a public outreach program to educate citizens about the green infrastructure corridors to promote preservation and use of the corridors.

Policy 3: Develop a community-wide program to enhance the community's awareness of the value of trees and the urban forest.

Standard 3.I Assist stewards of the community forest in providing accessible and on-going education opportunities.

The Community Forestry Commission was formed to develop a long-term management strategy for the urban forest and to promote education and outreach programs to educate the community about trees and forest. The Commission has sponsored an invasive species educational effort, a tree protection workshop and coordinates an annual native plant sale. These efforts should continue to focus on best management practices and provide opportunities for landowners to understand new incentive programs for tree preservation.

Many cities sponsor a NeighborWoods Tree Steward program. The program involves creating teams of neighborhood-based, well-trained volunteer tree stewards to plant and maintain street trees and contribute to the ongoing health of our community's trees. The program contributes to the improvement of the quality of life in neighborhoods, strengthens neighborhood identities, broadens an awareness of community forest needs and builds neighborhood pride as citizens work together to care for neighborhood trees.

Actions

- a. Observe City-wide Arbor Day. Partner with other agencies and the school district to provide Arbor Day education and activities.
- b. Apply for and maintain Tree City, USA status.
- c. Develop a City-sponsored quarterly community education workshop on forest and tree management topics. Target architects, development and construction firms, real estate professionals, City employees and private landowners.
- d. Continue the annual Native Plant Sale to provide native plants to residents.
- e. Facilitate a greenwaste recycling program.
- f. Promote the "wildlife tree" concept by encouraging landowners to retain topped or diseased trees that do not present a hazard and by providing wildlife tree signs to landowners.
- g. Develop a Community Forest Stewardship program such as NeighborWoods that provides training and recognition to citizens who assist in planting and maintaining street trees in the urban core.

Policy 4: Encourage the use of Best Management Practices to protect and enhance community trees and forests.

Standard 4.1 The use of Best Management Practices for forests and trees encourages appropriate species selection, planting techniques, protection during construction, and maintenance.

Actions

- a. Create a Best Practices Manual for forests and trees that recognizes the unique conditions of the community and is subject to periodic review and update.
- b. Adopt Best Management Practices as standard City operating procedures.
- c. Encourage public entities such as the Parks Department and the School District to adopt the Best Management Practices.
- d. Promote awareness of policies in the Community Forest Management Plan and Best Management Practices for trees by providing materials, website links and technical assistance.

As more development occurs in our community, native forests are being replaced with lawns and gardens, comprised primarily of non-native species. This 'urbanization' of the forest is occurring with significant costs to the ecosystem. Non-native plants are "high maintenance" and usually require substantial support systems to keep them alive. These support systems, in the form of fertilizers, pesticides and large additions of water, place considerable strain on the environment.

Standard 4.2 Protect and enhance native plant communities.

Native plant communities are made up of groundcover plants, understory or shrub-like plants and small trees, in combination with large native trees such as Douglas fir, Western Hemlock, and Bigleaf Maple. These plant communities have evolved over many thousands of years to form compatible plant associations. They have adapted to the climate, geography and animal populations of the region. Native plants provide habitat and food for animals, such as birds, butterflies and mammals.

In protecting the forests and trees of Bainbridge Island, it is important to focus on preserving a healthy native forest plant community. The Community Forestry Commission recommends that Best Management Practices that facilitate the long-term health of native plant communities be given the utmost priority.

Actions

- a. Promote Best Management Practices that enable preservation and restoration of native forest communities.
- b. Develop Best Management Practices that encourage the greatest degree of compatibility between development and native plant materials.
- c. Use Best Management Practices to actively protect and restore native plant communities on all public lands.

Standard 4.3 Develop Best Management Practices that protect existing mature trees in the urban area.

Existing, mature trees are a valuable and vital element of the urban environment. Mature trees provide the canopy cover that generates many of the beneficial functions discussed elsewhere in this document, including stormwater attenuation, carbon uptake, and temperature stabilization. They contribute to a healthy urban forest structure and provide shade and visual relief in the city.

In addition, stands of large native trees are a visual reminder of the beauty and cultural heritage of the Pacific Northwest. Retention of large trees creates a community image and a sense of place that Island residents cherish. Large native trees provide numerous utilitarian benefits, but they are also part of our emotional connection to this island home.

Many mature trees in the urban environment are damaged by incorrect pruning or maintenance techniques, caused, for example, by installation of utilities or infrastructure in their root zones or by nearby construction activities. In order to preserve existing mature trees, Best Management Practices for tree maintenance and for tree preservation during construction must be widely accepted and implemented.

Actions

- a. Require land owners to implement Best Management Practices for tree protection during construction.
- b. Dedicate staff time for education about Best Management Practices.
- c. Educate City staff, Parks Department staff and other tree maintenance workers on Best Management Practices for tree protection.
- d. Provide workshops for construction firms to promote a shared understanding within the industry about the purpose and strategies for tree retention.
- e. Develop disincentives for damaging mature trees that are required to be preserved during construction.

Policy 5: Control and prevent establishment of invasive species that are destructive to forest health.

Standard 5.I Invasive plant species are widespread and pose a serious threat to the health of the Island's forest.

As discussed in Section 2 of this report, invasive species are one of the greatest threats to the health of our forests. The City should provide funds and coordinate efforts to address the impacts and facilitate eradication of invasive plant species in our forests.

Actions

- a. Develop partnerships to initiate an invasive species educational program that encourages citizens to avoid planting invasive species and to educate residents about invasive species removal techniques.
- b. Work with the Kitsap County Weed Board and volunteer groups to provide opportunities for invasive species removal, especially ivy and knotweed, on public lands.
- c. Promote a cooperative effort among local businesses to inform the public about invasive species and provide appropriate products.
- d. Seek funding to develop special programs to promote appropriate disposal of invasive species.
- e. Develop regulations that prevent acceptance of landscape plans that include invasive species.

Policy 6: Periodically review Island-wide forest conditions and revise policies and actions to address changing or emerging circumstances and needs.

Standard 6.I Periodic inventories of the forest resources are necessary to assess change over time. The canopy cover study and street tree inventory that were prepared for this plan provide baseline data. Future data comparisons can be used to assess changes in forest canopy and forest health over time. Depending on the future rate of development in the community, it will be important to update this information at least every decade.

Actions

- a. Conduct a canopy cover inventory every ten years to monitor change over time.
- b. Maintain an inventory of City street trees, civic trees and “Exceptional” trees in the urban area. The inventory should be updated periodically.

Standard 6.2 Programs and policies should be revised as necessary over time to ensure forest health and achieve canopy cover goals. Using updated data every 5-10 years, the Community Forestry Commission and City staff should update this plan to ensure that the goal of maintaining a healthy and functioning community forest is achieved.

Actions

- a. Develop a process to respond to significant changes in the forest canopy through revisions to this management plan.
- b. Review and revise Comprehensive Plan policies related to forestry to respond to changes in forest canopy cover.

Standard 6.3. Employ or retain qualified, professional assistance to implement all standards and actions recommended by this plan. In recent decades a unique professional segment of forestry has emerged – municipal and urban forestry. While many urban forestry practices are premised on traditional forestry, the specific conditions of cities and towns demand specialized skills and knowledge. Certified urban and municipal foresters are able to address issues of tree growth, forest planning, and administrative and regulatory implementation.

Actions

- c. Develop a full or part-time urban forestry position within either the Department of Planning and Community Development or the Department of Public Works.

5 Management Plan Implementation

Proposed Priorities and Budget for FY 2006-2010

Implementation of the actions recommended by this plan must be prioritized and budgeted on a long-term basis (a five-year master plan) as well as annually:

- development of an administrative program focused on urban forestry, including establishment of a City arborist/urban forester position;
- consolidation of all tree-related codes into one chapter of the Bainbridge Island Municipal Code; and
- development of a Best Management Practices manual and a Street Tree Management Plan to set the framework for a successful, long-term management strategy.

Administrative Program Development 2006

Create a Job Description for a City Arborist or Urban Forester

In order to effectively implement many of the programs recommended by this management plan, a qualified professional urban forester or city arborist will be essential. At this time a half-time position may be appropriate, depending on the extent of work that develops from this program.

Budget Impact: Cost of salary for one half-time position, depending on qualifications (\$20,000-\$30,000)

Revise and Consolidate all Tree-Related Codes

Regulations pertaining to tree preservation, hazard trees, trees in critical areas, etc. are located in different chapters of the Bainbridge Island Municipal Code. In order to more effectively communicate the tree-related regulations and to simplify the accessibility of these regulations, it is recommended that all tree-related regulations be consolidated into one separate chapter of the code, with cross-referencing as needed. The revised regulations should address the issues and recommendations set forth in this plan. This item should be added to the Department of Planning and Community Development 2006 Workplan.

Budget Impact: No additional cost to the City.

Develop a Best Management Practices Manual

A Best Management Practices Manual for trees should be developed as a resource for City staff and for private property owners. The use of Best Management Practices should be required by ordinance for all construction projects. The contract for development of this manual will be issued in 2005. Publication and distribution of the manual is planned for 2006.

Budget Impact: \$10,000 for consultant contract to develop manual.

Develop a Master Street and Civic Tree and Management Program

The Street Tree inventory conducted as part of this management plan effort will support development of a Street Tree Management Program. Development and implementation of a street tree program will involve comprehensive management of the city maintained street trees, planting of additional trees to enhance species and structural diversity, appropriate and regularly scheduled pruning, and disease management. This effort can be undertaken by the City arborist or urban forester, in cooperation with the Department of Public Works.

Budget Impact: No additional cost if completed by City staff. Approximately \$8,000 to contract with a consultant for plan development.

Potential Funding Sources for Urban Forest

Diversifying the funding sources for Community Forestry may make it possible to increase the number of projects accomplished and reduce reliance on limited municipal funds. Potential sources of additional revenue are identified as follows:

Grants. Community Forestry Assistance Grants are available through the Washington State Department of Natural Resources. These grants are awarded on a matching basis, for program development, education and tree planting. Up to \$120,000 in grant money was available in 2005 and could be used for ordinance development, tree inventory efforts, or development of a street tree management plan.

Other grant monies are available through organizations such as the National Tree Trust (NTT), a national urban and community forestry nonprofit organization, which recently awarded \$498,000 to 31 nonprofit organizations across the country for projects that improve the health of urban and community forests.

City Funding for Urban Forestry. The Community Forestry Commission has an annual budget to fund education and outreach activities and to fund development of this management plan. Continued funding of the Community Forestry Commission's activities is crucial to implementation and monitoring of this plan.

Volunteer Contributions. Many of the projects listed in the workplan can be accomplished with volunteer time and assistance. Programs such as Neighborwoods encourage volunteer stewardship that results in planting and maintenance of street trees. However, City-funded staff time is often necessary to initiate and coordinate volunteer efforts. Establishment of a City Arborist position having an emphasis on outreach and stewardship coordination will result in the most effective use of all available resources.

Stewardship

This section identifies the key agencies and individuals responsible for stewardship of our forests and encourages alliances and cooperation among these groups to promote the protection and management of the community forest.

The stewardship of the community forest as part of the urban ecosystem is the responsibility of many groups and individuals in the City of Bainbridge Island. First and foremost, the residents and property owners of Bainbridge Island are stewards of the trees and forests on private property, as well as many street trees and trees within public property areas, open space, parks and easements. Along with these individuals, the following groups have an interest in and responsibilities for protecting and managing the community forest:

Bainbridge Island City Council. The City Council, working with the Mayor and staff, establishes policy and makes budget decisions based on provisions of the Comprehensive Plan. A number of committees, including the Land Use Committee and the Public Works and Transportation Committee make decisions relating to management of the urban forest.

Bainbridge Island Planning Commission. The Planning Commission works in an advisory capacity to the City Council or the Planning Director, and reviews applications for projects. The Planning Commission can recommend project conditions to preserve or plant trees on development sites.

Community Forestry Commission. Members of the Community Forestry Commission are appointed by the Mayor and act in an advisory capacity to the City on tree-related programs. The Commission is responsible for developing this management plan and for implementing educational and outreach programs to promote urban forestry in the City of Bainbridge Island.

Bainbridge Island Parks and Recreation District. The Bainbridge Island Parks and Recreation District is a separate agency from the City of Bainbridge Island. The Parks District manages the majority of public parks on the Island, some of which contain large forested areas. The Parks District is also charged with long-term management of lands purchased by the Open Space Commission. The Parks District has a maintenance program, but individual property management plans have not been developed for the various properties under the purview of this agency.

Bainbridge Island Open Space Commission. The Open Space Commission is an advisory group charged with recommending purchase of properties with the eight million dollar public bond funds approved by Island citizens in 2003. To date, 238 acres of property have been purchased, including many valuable forested areas.

Planning and Community Development Department. The planning department has a significant influence on tree-related issues in the City of Bainbridge Island. This department is the key reviewing agency for new construction in the City. Therefore, it is the first department to identify issues relating to tree preservation, removal or modification to landscaping. The planning department also drafts tree-related ordinances and implements tree-related programs. Planning department staff provides staff support to the Community Forestry Commission. The Director and staff in this department coordinate urban forest issues with the Commission, City Council, other City departments and other partners.



Public Works Department. This department manages municipal improvement projects that may impact trees, including sidewalk repairs, street improvements, street lighting and signage and other projects that involve infrastructure. The Public Works Department also reviews development plans for civil engineering, utilities, and drainage issues. This department coordinates with the planning department and other agencies on project review.

City Operations and Maintenance Division. This division of the Public Works Department is responsible for implementation of many municipal improvement projects. In addition, the Operations and Maintenance division staff is responsible for maintenance of the streets and rights-of-way and of stormwater facilities.

Bainbridge Island Land Trust. The Bainbridge Island Land Trust (BILT) seeks to preserve land having significant conservation values such as scenic vistas, wetlands, open spaces, tidelands, forests, unique plant and animal habitats, and stream and wildlife corridors, and to help landowners minimize the environmental impacts of development. Many acres of forest land on the Island have been preserved through conservation easements facilitated by the BILT.

Other Stewardship Efforts. Many volunteers and organizations on Bainbridge Island assist in preserving and restoring natural forest lands. Weed Warriors, a relatively new group, focuses on eradication of invasive species, especially ivy. Their efforts, in cooperation with IslandWood environmental learning center, have resulted in large areas of forests cleared of ivy. The Watershed Council, the Association for Bainbridge Communities and other environmental groups on the Island advocate for preservation of open space and forests in the community.

Table : Community Forest 2005-2010 Workplan

Action	Lead Staff/ Department	Partner Departments/ Agencies	Timeframe	Budget	Evaluation Tools
Policy I: Protect, restore and improve existing vegetation that has environmental, wildlife habitat and aesthetic qualities, including tree groves, significant tree stands, and forested hillsides and vegetation associated with wetlands, stream corridors and riparian areas.					
Identify priority areas for forest preservation	CFC	Open Space Commission, BI Land Trust	2005-2010		
Develop educational materials to inform landowners about the benefits of tree canopy and management approaches that can be applied to private property.	Staff Forester/ CFC		2006	\$5,000	
Develop site-based management plans for properties purchased by the Open Space Commission.	Staff Forester	Open Space Commission or BI Land Trust	2006-2007		
Develop a long-term tree management plan for Waterfront Park.	Staff Forester				
Policy 2: Initiate and promote urban tree management practices in high density, mixed use areas in order to improve quality of life for all district users and create more livable conditions, to include visual amenities, environmental services and economic development.					
Develop a Green Corridor Plan. Create incentives for preservation of the green corridors.	Dept. of Planning and Community Development	Winslow Tomorrow, Non-motorized Transportation Committee	2006		
Develop street profiles that include trees and create more opportunities for tree planting in the public right-of-way. Include innovative standards for adequate tree planting facilities.	Staff Forester / Dept. of Public Works		2006-2007		
Develop incentives to preserve existing trees and native vegetation in site design of new development in the urban area.	Dept. of Planning and Community Development		2006		
Develop a Transfer of Development Rights program to encourage preservation of forested properties on the Island and especially in the more densely developed areas of the community.	Dept. of Planning and Community Development		2006-2007		
Periodically identify and map exceptional trees in the urban area and make the information available to planners for use during site plan reviews.	Staff Forester		2010	\$3,000	
Policy 3: Develop a community-wide program to enhance the community's awareness of the value of trees and the urban forest.					
Observe City-wide Arbor Day. Partner with other agencies to provide Arbor Day education and activities.	CFC		2005-2010	\$1,000/year	

Implement a Heritage Tree Program	CFC/ Staff Forester		2005-2010	\$1000 first year \$500/year thereafter	
Develop a City-sponsored quarterly community education workshop on forest and tree management topics. Target architects, development and construction firms, real estate professionals and private landowners.	CFC		2006	\$2,000/year	
Facilitate a greenwaste recycling program.	Staff Forester		2007-2010		
Promote the "wildlife tree" concept by encouraging landowners to retain topped or diseased trees that do not present a hazard and by providing wildlife tree signs to landowners.	Staff Forester / Dept. of Planning and Community Development		2007		
Initiate a NeighborWoods Program	Staff Forester		2007-2010		
Policy 4: Encourage the use of Best Management Practices to protect and enhance community trees and forests.					
Adopt Best Management Practices as standard City operating procedures.	All City Departments		2005-2006		
Publish and Distribute BMP manual	Dept. of Planning and Community Development				
Policy 5: Control and prevent establishment of invasive species that are destructive to forest health.					
Initiate an invasive species educational program to encourage citizens to avoid planting invasive species and to educate residents about invasive species removal techniques.	CFC/Weed Warriors		2007	\$500/year	
Compile data on invasive species to assess priority areas for removal programs.	CFC	Weed Warriors, Kitsap County Weed Board		\$3,000	
Policy 6: Periodically review Island-wide forest conditions and revise policies and actions to address changing or emerging circumstances and needs.					
Develop Watershed Canopy Cover Targets and Coordinate Future Zoning to Accommodate Targets	Dept. of Planning and Community Development	Watershed Council	2006		
Conduct regular Street Tree and Exceptional Tree Inventories	Staff Forester		2007-2010	\$3,000	

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- Cover Photo by Kimball Andrew Schmidt pbase.com/kaschmidt

A Appendix A

Forest Canopy Cover Inventory

The City acquired 0.5-foot pixel resolution color orthophotography in late 2004 (aerial photography flown October 7, 2004). The project consultant, Port Madison GIS, Inc., utilized “heads-up” (screen) digitizing techniques to delineate forest canopy polygons at a display scale of approximately one inch to 80 feet for the entire Island. This yielded detailed canopy data that can be intersected with other map layers utilizing geographic information system (GIS) software; for example, percent forest cover by zoning, drainage basin, public land ownership, neighborhood, or other category of interest. Such analysis provides reasonably accurate area statistics that can be re-calculated periodically as development occurs. Along with demographic projections, this can be a useful predictive tool to enhance city land use policy and improve staff decision making.

Table I. Canopy Cover Inventory Data Results

Zone Area	Total Acreage in Zone Area	Total Forest Canopy	Percent Canopy Cover
Low Density Residential (R-2, R-1, R-0.4)	15,867.78 acres	11,908.09 acres	75.04 %
High Density Residential (R2.9 through R-14)	1043.57 acres	490.99 acres	47.05%
Neighborhood Service Centers	36.24 acres	9.7 acres	26.77%
Mixed Use Town Center/High School Road Districts	214.71 acres	89.27 acres	41.58%
Winslow Core	87.1 acres	25.57 acres	29.36%
Other	180.71 acres	105.25 acres	58.24%
All Island	17,430.11	12,628.87	72.45%

Several technical limitations to the forest canopy data should be noted:

- Given the date of the photography, some deciduous trees appear leaf-free and may not have been discernible.
- Canopy polygon edges are generalized somewhat, especially where displacement of tall tree crowns is present. It is assumed that these generalizations compensate each other in area calculations and do not greatly affect the final statistics.
- Mapping in obscured areas such as shadows or tall buildings cannot be easily validated without extensive field checking.
- Transition areas, including such vegetation categories as blackberries and wetland shrubs, are sometimes difficult to differentiate from low forest canopy.
- Ornamental plantings and other tree cover in residential areas were mapped as consistently as possible, although many ambiguous situations were encountered.
- The final canopy data is suitable for analysis and display at scales of one inch to 100 feet (1:1200) and smaller. The data should be used for detailed site analysis only when augmented by field observation.

B Appendix B

Street Tree Inventory

An inventory of street trees was conducted in July and August, 2005. For the purposes of this study, street trees were defined as those trees within the right-of-way that are located between the sidewalk and the roadway, i.e., in planter strips, or in planters in the center of roadways. The boundaries of this study generally followed the boundaries of the Mixed Use Town Center/High School Road I zones: Grow Avenue to the west, Ericksen Avenue to the east, High School Road to the North. Data was collected and tree locations were recorded using an ArcPad program. Tree locations were then downloaded into the City's ArcGIS mapping program.

For each street tree, information on tree species, diameter at breast height (dbh), root condition, trunk condition, and condition of the scaffold branches, twigs and foliage was recorded.

Table 2. Street Trees

Scientific name	Common Name	Number of Trees
<i>Acer griseum</i>	paperbark maple	3
<i>Liquidambar styraciflua</i>	American sweetgum	16
<i>Acer macrophyllum</i>	bigleaf maple	8
<i>Malus floribunda</i>	flowering crabapple	1
<i>Malus sylvestris</i>	edible apple	2
<i>Metasequoia glyptostroboides</i>	dawn redwood	1
<i>Morus sibirica</i>	fruitless mulberry	1
<i>Acer palmatum</i>	Japanese maple	12
<i>Pinus nigra</i>	Austrian black pine	7
<i>Acer platanoides</i>	Norway maple	1
<i>Prunus cerasifera</i>	purple-leaf plum	11
<i>Prunus domestica</i>	fruit plum	3
<i>Prunus serrulata</i>	flowering cherry	5
<i>Prunus sp.</i>	cherry	3
<i>Pseudotsuga menziesii</i>	Douglas fir	7
<i>Pyrus calleryana</i>	ornamental pear	9
<i>Pyrus communis</i>	fruiting pear	1
<i>Acer rubrum</i>	red maple	26
<i>Acer saccharinum</i>	silver maple	2
<i>Salix matsudana 'tortuosa'</i>	corkscrew willow	1
<i>Thuja plicata</i>	Western red cedar	1
<i>Tilia cordata</i>	littleleaf linden	6
<i>Acer sp.</i>	maple	4
<i>Zelkova serrata</i>	Japanese zelkova	10
<i>Araucaria araucana</i>	monkey puzzle tree	1
<i>Arbutus unedo</i>	strawberry tree	1

Scientific name	Common Name	Number of Trees
<i>Betula jacquemontii</i>	Jacquemonti birch	7
<i>Carpinus betulus</i>	pyramidal hornbeam	12
<i>Cercidiphyllum japonicum</i>	katsura	13
<i>Acer campestre</i>	hedge maple	3
<i>Cornus sp.</i>	dogwood	3
<i>Cotinus coggygria</i>	smoke tree	1
<i>Acer circinatum</i>	vine maple	2
<i>Fraxinus americana</i>	white ash	2
<i>Fraxinus oxycarpa</i> 'raywood'	Raywood ash	14
<i>Fraxinus pennsylvanica</i>	green ash	14
Unknown		8

RESOLUTION NO. 2006-07

A RESOLUTION of the City of Bainbridge Island, Washington, accepting a Community Forest Management Plan for the purposes of implementing comprehensive management of the community forest.

WHEREAS, as required by the Washington State Growth Management Act, the City adopted a Comprehensive Plan on September 1, 1994, subsequently amended;

WHEREAS, the Comprehensive Plan contains an Environmental Element that establishes goals and policies to preserve and enhance the community forest; and

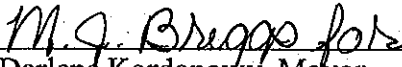
WHEREAS, in September 2001, Resolution 2001-51, established the Community Forestry Commission tasked with development of a Community Forestry Management Plan; now, therefore,

THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND, WASHINGTON, DO RESOLVE AS FOLLOWS:

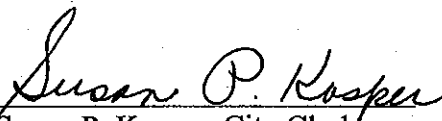
Section 1. The City Council accepts the attached and incorporated City of Bainbridge Island Community Forest Management Plan 2006 as a guide for long-term management of the community forest. Portions of the plan may be adopted in the future for implementation, as necessary.

PASSED by the City Council this 8th day of February, 2006.

APPROVED by the Mayor this 9th day of February, 2006.


Darlene Kordonowy, Mayor

ATTEST/AUTHENTICATE:


Susan P. Kasper, City Clerk

FILED WITH THE CITY CLERK:
PASSED BY THE CITY COUNCIL:
RESOLUTION NO.

January 31, 2006
February 8, 2006
2006-07

City of Bainbridge Island

City Council Agenda Bill



PROCESS INFORMATION

Subject: 7:35 PM Resolution No. 2017-19 Adopting the Bainbridge Island Open Space Study (2008), AB 17-143 - Councilmembers Peltier and Medina (Pg. 82)	Date: 8/15/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-143
Proposed By: City Council Tree and Low Impact Development Ad Hoc Committee	Referrals(s):

BUDGET INFORMATION

Department: Planning	Fund:	
Expenditure Req:	Budgeted?	Budget Amend. Req?

REFERRALS/REVIEW

:	Recommendation:	
City Manager:	Legal: Yes	Finance:

DESCRIPTION/BACKGROUND

The *Bainbridge Island Open Space Study* was completed in October 2008. The *Study* precipitated from the 2007 work of a then citizen advisory group, the Mayor's 2025 Growth Advisory Committee, that was considering different growth strategies for the City's Comprehensive Plan and sought a comprehensive open space inventory to determine what areas should be identified for conservation instead of growth.

The City Council formally accepted the *Bainbridge Island Open Space Study* on November 12, 2008, after a public workshop on the study on October 8, 2008.

The *Bainbridge Island Open Space Study* can be viewed on the City's website:
<http://www.bainbridgewa.gov/DocumentCenter/View/5507>

This agenda item is for the Council to consider adoption of the Open Space Study.

RECOMMENDED ACTION/MOTION

I move that the City Council forward Resolution No. 2017-19 to the September 12, 2017, Consent Agenda for approval.

ATTACHMENTS:

Description	Type
☐ Staff Memo	Backup Material
☐ Staff Memo Attachment 1	Backup Material
☐ Resolution No. 2017-19	Backup Material

MEMORANDUM

Date: August 15, 2017
To: City Council
From: Christy Carr, AICP
Senior Planner
Subject: 2008 Bainbridge Island Open Space Study
Resolution 2017-19

I. BACKGROUND

A summary of the background, purpose and recommendations of the 2008 Bainbridge Island Open Space Study (*Open Space Study*) is provided in the attached staff memorandum from the October 2, 2008 City Council workshop. The *Open Space Study* was formally adopted by Council via unanimous approval of a motion at the November 12, 2008 meeting:

Move to accept the City of Bainbridge Island Open Space Study October 2008 and authorize the Land Use Committee to work with staff to develop a work plan for adopting a comprehensive open space conversation plan and watershed plan before incorporation of the priority lands into the 2025 – 2030 project and the growth strategy amendments to the Comprehensive Plan.

II. BRIEF SUMMARY OF *OPEN SPACE STUDY*

The *Open Space Study* provides “an assessment of high-priority open space areas for conservation of vital environmental and human-valued resources, as well as options to design a city-wide program to preserve open space and enhance the natural environment across the island.” The priority open space areas were determined through both a scientific, landscape ecology-based analysis and the input, knowledge and ideas of citizens. The results include identification of 22 high priority open space areas totaling approximately 900 acres and an additional 20 and 23 areas of medium and low priority areas, respectively. The *Open Space Study* pairs this inventory with a laundry list of strategies (20 total) for open space preservation including regulatory strategies and landowner incentives. In addition, seven key recommendations are provided specific to Bainbridge Island to develop a multi-pronged approach to open space preservation:

1. Broaden the Mandate for the Open Space Commission
2. Increase Staff Capability to Support the Open Space Commission
3. Explore the Full Menu of Land Protection Techniques and Adopt or Modify Those that are Appropriate
 - a. Refine the Cluster Subdivision Ordinance

- b. Encourage Donation of Conservation Easements
 - c. Purchase Development Rights (PDR) or Conservation Easements on Priority Lands
 - d. Utilize Creative Purchase Options
 - e. Improve Critical Area Overlay District
 - f. Restructure the TDR Program
 - g. Attract Conservation Buyers where Appropriate
 - h. Establish a Technical Resource Team
- 4. Review Funding Options Based on the Trust for Public Lands (TPL) Report
 - 5. Use Priority Open Space Map for Reviewing Open Space Funding Requests
 - 6. Continue to Work Collaboratively with Land Trusts
 - 7. Enhance Existing Tools and Regulations for Open Space Protection or Enhancement

The majority of these recommendations are still relevant but have not been pursued. The Open Space Commission disbanded in 2009. The economic climate immediately following the completion of the *Open Space Study* did not allow for open space preservation funding. The Critical Area Overlay District was eliminated through the 2017 Comprehensive Plan Update. The City continues to work collaboratively with the Bainbridge Island Land Trust and Bainbridge Island Metropolitan Park and Recreation District. The 2012 land use code update process and follow-on work by the ad hoc tree committee has resulted in limited improvements to existing regulations related to landscaping. The City completed a Shoreline Restoration Plan in 2012 that identifies priority sites for restoration. The critical areas ordinance update is currently underway and will likely include allowances for alternative mitigation strategies including off-site preservation and restoration. Revisiting the City's TDR Program is part of the Comprehensive Plan implementation workplan, scheduled to commence this fall. In addition, the *Open Space Study* was recently added to the list of plans included in the City's State Environmental Policy Act (SEPA) substantive authority (BIMC 16.04.160) to be used when reviewing potential environmental impacts of land use proposals.

III. TREE AND LOW IMPACT DEVELOPMENT AD HOC COMMITTEE RECOMMENDATION

The Tree and LID Ad Hoc Committee recommended to the full City Council that the *Open Space Study* should be adopted. The City Council agreed with that recommendation at their July 18, 2017 meeting. Resolution 2017-19 accomplishes that goal.

IV. NEXT STEPS

As mentioned above, the *Open Space Study* provides several key recommendations to develop an approach to open space preservation. The adoption of the *Open Space Study* presents the opportunity to revisit these recommendations and other components of the plan to achieve the natural resource goals articulated in the 2017 Comprehensive Plan.

City of Bainbridge Island
PLANNING & COMMUNITY DEVELOPMENT



MEMORANDUM

TO: Mayor and City Council

FROM: Libby Hudson, Long Range Planning Division Manager

DATE: October 2, 2008

RE: Council Workshop of October 8, 2008 – 5:30 to 6:00 p.m.
Presentation of Open Space Study

I am pleased to present the final Open Space Study to the Mayor and City Council at the Council Workshop of October 8. The work to accomplish this study began last year and involved two citizen committees (one recommending that such a study be undertaken and another to serve as a stakeholder group during the study). The report is an important component necessary to continue the work of the 2025/2030 Project, which will eventually result in amendments to the City's Comprehensive Plan. Our consultant, Jim Keany, Ecologist from EDAW, will present the methodology and be available to answer questions regarding the study. After Council has had time to read and absorb the report, it will be placed on a future Council agenda for official acceptance and direction.

Background

In May of 2007, the Mayor's 2025 Growth Advisory Committee recommended changes to the City's current growth strategy of the Comprehensive Plan to address the anticipated population for the year 2025. As part of the preferred option of the *Final Report: Mayor's 2025 Growth Advisory Committee* (2025 Report), the Committee recommended that the City complete an Island-wide open space study to identify existing open space and future opportunities, and prioritize the preservation of the open space. As supported in the 2025 Report, the first principle of better development is to determine where not to develop. Due to the interrelationship of growth and open space preservation, the 2025 Report recommended that the open space study be developed prior to any growth strategy or land use changes. Once priority open space was identified, the Committee advised that planning efforts to conserve open space and to accommodate anticipated growth should then move forward together through continuation of the 2025/2030 Project.

The City Council approved funding for the open space study in the 2008 annual budget, and in February, 2008 the City contracted with EDAW, Inc., after a competitive round of proposals. The City formed a Stakeholder Group comprised of representatives of City citizen committees and other community groups with an interest in open space. The Stakeholder Group provided input and feedback on the City's study and assisted at public meetings.

Park District Planning

As the City began the open space study, the Bainbridge Island Metropolitan Park and Recreation District began their update to their 2002 Comprehensive Park Plan. The Park Districts update addresses park additions since adoption of the previous plan, and current and future park needs, based on community values and priorities. The Park District contracted with Beckwith Consulting Group to provide professional assistance for their plan update.

The City and the Park District joined together in much of the public involvement process of these two separate, but related planning efforts. Information generated from public meetings was shared, as were work products. Each of the projects informed the other, and through the shared communication process each of the planning efforts will hopefully lead to a more coordinated and integrated plan for open space conservation and protection. There was considerable overlap in the public input provided for these two planning projects. However, the Park District Plan update primarily addresses the public needs related to recreation and the human enjoyment of open space, while the City's planning effort is intended to serve multiple purposes, as described below.

Purpose of City Open Space Study

As supported in the 2025 Growth Advisory Report, the City's open space study is intended to be developed using green infrastructure principles and to include the following:

- 1) Identify priority open space based on community values, including identifying land valued for ecological, recreational or cultural purposes;
- 2) Build on previous work using the green infrastructure approach, which helps identify priority open space and form an interconnected network;
- 3) Provide a focus for the needs of Winslow;
- 4) Coordinate with the Parks District on their related Comprehensive Park Plan; and
- 5) Identify appropriate conservation mechanisms to protect and conserve the identified open space areas.

What is Green Infrastructure?

Green infrastructure is the interconnected open space network of the Island (including natural features, public and private conservation lands, working landscapes with ecological aspects, and other protected open space lands). As an example, our existing Wildlife Corridor Network would be considered part of our green infrastructure. Also, a green infrastructure approach is a process promoting a systematic and strategic method to land conservation based on ecological principles. EDAW employed this approach and other landscape ecology methodology to identify ecologically valuable lands. Through landscape ecology methodology and public involvement, EDAW determined the priority areas that are of highest value to our community.

Recommendations

As a result of the analysis, the report presents identified priority lands and illustrates these as high, medium or low priority Island-wide. In addition, Winslow was treated slightly differently since this area has less availability of open space than other areas of the Island, and therefore the priority open space needs were based primarily on public input rather than ecological analysis.

The report also provides recommendations to the City on open space conservation strategies, suggesting that the City take a long-term, multi-pronged approach to open space preservation. The report offers a suite of conservation planning and funding strategies, many of which the City has successfully utilized in the past. It recommends broadening the mandate of the Open Space Commission, strengthening our partnerships with the Park District and the Bainbridge Island Land Trust, and suggests providing shared staff support to the Open Space Commission from both the City and Parks District. The executive summary includes an overview of the study and a summary of the recommendations.

How Should the Report be Used?

As stated earlier, this study was primarily undertaken to identify priority lands valued by the community that are part of our green infrastructure or that enhance our interconnected network, and which are not presently protected or conserved. This study can be used as a framework tool, a discussion paper, an idea paper, an action plan, and a greenprint to build and enhance protections of our natural systems and connected open space. Our open space plan should reflect the values of the community, layout the greenprint for further action, and allow for opportunities that meet our goals in a different way than we might imagine today.

The recommended priority lands and conservation strategies can provide a framework to inform planning efforts in the following ways:

- **2025/2030 Project** – As a tool to identify areas that should not be considered for additional development to accommodate anticipated population growth to the year 2030. Also, in developing an improved Transfer of Development Rights (TDR) program that targets development rights transfers from identified priority open space areas to areas appropriate for density increases, such as our Neighborhood Centers, as suggested in the 2025 Growth Advisory Report.
- **Comprehensive Open Space Planning** – To provide the basis for a comprehensive, strategic conservation plan for the Island’s open space in coordination with the Metro Park District and the Bainbridge Island Land Trust and other partners. Serve as a tool and a springboard to strengthen our partnerships in open space planning, development and maintenance.
- **Winslow Greenspace Planning** – As a framework for developing a comprehensive greenspace/recreation plan for the Winslow area to meet the needs of the anticipated growing population and meet the goals of Winslow as a livable place to live, shop, and work.
- **Non-Motorized Transportation Plan and Trail Network Development** – As a tool to inform future amendments to the City’s Non-Motorized Plan and the Metro Park District’s Trail Plan, integrating and enhancing the recreation and transportation pieces of our trail system and including these in our interconnected green infrastructure.

Open space planning should be strategic and dynamic, and this study and the identified priority areas will require further development as additional knowledge and understanding of our Island landscape is developed. Although this is the final report of a study conducted by the City, it is not the final word in the Island's open space planning. We should recognize that further work is needed to reach our goals, and the City and our partners will need to incorporate other appropriate priority lands that may be identified through future planning efforts, including:

- **Shoreline Master Program Update** – The Open Space Study purposefully limits consideration of shoreline areas because it was not included in the scope of work, and as part of the City's upcoming Shoreline Master Program Update, the City is required to develop a shoreline restoration and conservation plan. As analysis is completed in respect to our shorelines' aspects, the open space priority map can be expanded to include appropriate ecologically important shoreline areas and areas that provide public access opportunities.
- **Tree and Landscape Code Consolidation Project** – Because trees and canopy coverage are an important part of our Island environment and valued by our community, the refinement of our tree and landscape regulations and incentives may provide additional information and/or identify potential ecological areas of concern that should be incorporated into our green infrastructure and priority open space map.
- **Strengthen partnerships** – Strategic open space planning requires working in a comprehensive manner with many partners that share our common goal of maintaining a healthy, connected green network. Coordinated efforts to create an interconnected green network in Winslow will require strong partnerships with the Metro Park District and the School District and other partners.

Next Steps

- Bring the study to the City Council in November to accept and consider next steps and introduce the study to the Park District and Planning Commission
- Provide Council direction on incorporation of the priority lands into the 2025/2030 Project and the growth strategy amendments to the Comprehensive Plan
- Consider recommendations of the study, including
 - Expanding the charge of the Open Space Commission and staffing needs
 - Formalizing relationship with Park District in respect to open space planning
 - Formalizing relationship with the Bainbridge Island Land Trust
 - Developing open space acquisition and preservation program with partners

Our community's efforts in open space conservation have already protected valuable areas of our Island and provided the main components of our green infrastructure. This study identifies how we can build on that work, improve our strategies and maintain and protect areas that are most valuable to our community. By working together, we can accomplish much in these challenging economic times. Strengthening our partnerships will allow us to work even more effectively to conserve those areas our community most values, for today's Islander and for generations into the future.

RESOLUTION NO. 2017-19

A RESOLUTION of the City Council of Bainbridge Island, Washington, adopting the *Bainbridge Island Open Space Study* (2008).

WHEREAS, in 2007 the City was preparing for a periodic update of its Comprehensive Plan that was to be completed by 2012, but the State delayed that periodic update until 2016; and

WHEREAS, in 2007 a then citizen advisory group, the Mayor's 2025 Growth Advisory Committee, was considering different growth strategies for the City's Comprehensive Plan and sought a comprehensive open space inventory to determine what areas should be identified for conservation instead of growth; and

WHEREAS, the *Bainbridge Island Open Space Study* work coincided with two other community open space efforts: 1) the City's Open Space Commission, which reviewed properties for the City to buy as open space; and 2) the Bainbridge Island Metropolitan Park and Recreation District, which was reviewing options for increasing parks in the Winslow area and undertaking a comprehensive plan update; and

WHEREAS, the *Bainbridge Island Open Space Study* was completed in 2008 and included an inventory of important Island natural resources and recommendations for additional programs, public education and outreach, incentives, and an improved Transfer of Development Rights program; and

WHEREAS, the City Council discussed the *Bainbridge Island Open Space Study* at a workshop on October 8, 2008, and formally accepted the *Study* on November 12, 2008, via a unanimous vote of approval of a motion to accept the *Study* and to authorize work related to the *Study*; and

WHEREAS, several recommendations from the *Bainbridge Island Open Space Study* are still relevant and have not been implemented; and

WHEREAS, the Council Tree and Low Impact Development Ad Hoc Committee has recommended that the *Bainbridge Island Open Space Study* should be adopted by the City Council to promote implementation of *Study* recommendations; now, therefore,

THE CITY COUNCIL OF THE CITY OF BAINBRIDGE ISLAND DOES RESOLVE AS FOLLOWS:

Section 1. The *Bainbridge Island Open Space Study* (2008) is hereby adopted. The City will review *Study* recommendations and work toward implementation of those recommendations through review of the City's transfer of development rights regulations, program development, and public outreach.

PASSED by the City Council this ____ day of September, 2017.

APPROVED by the Mayor this ____ day of September, 2017.

By: _____
Val Tollefson, Mayor

ATTEST/AUTHENTICATE:

By: _____
Christine Brown, City Clerk

FILED WITH THE CITY CLERK:	August 11, 2017
PASSED BY THE CITY COUNCIL:	September ____, 2017
RESOLUTION NO. 2017-19	

City of Bainbridge Island

City Council Agenda Bill



PROCESS INFORMATION

Subject: 7:45 PM Utility Advisory Committee Recommendation on the SSWM Study, AB 17-147 - Public Works (Pg. 92)	Date: 8/15/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-147
Proposed By: Public Works Director Barry Loveless	Referrals(s):

BUDGET INFORMATION

Department: Public Works	Fund:
Expenditure Req: N/A	Budgeted? Budget Amend. Req?

REFERRALS/REVIEW

:	Recommendation:
City Manager: Yes	Legal: Yes Finance:

DESCRIPTION/BACKGROUND

At the February 7, 2017, City Council Study Session, the 2017 UAC Work Plan was discussed and included the following work item:

2017 SSWM Operating Expense Study. We ask that the UAC advise the Council as to whether or not there is value added in a SSWM Expense Study in 2017-18.

The UAC has completed their efforts on this work item and are prepared to present their recommendation as contained in the attached memorandum.

RECOMMENDED ACTION/MOTION

Information only.

ATTACHMENTS:

Description	Type
☐ UAC 2017 Workplan	Backup Material
☐ UAC SSWM Study Recommendation	Backup Material

MEMORANDUM

TO: Utility Advisory Committee

FROM: City Council

SUBJECT: 2017 WORK PLAN

Based on your Memo dated December 22, 2016, and on Council discussion at its February 7 Study Session, Council requests that your 2017 Work Plan consist of the following:

- A. Review of Sewer System. We ask that the UAC conduct a heightened review of the city's three utilities on a regular schedule, one per year. The UAC's review would be of the performance, reliability, and cost of the utility's service. We ask that you start with the sewer utility in 2017.
- B. 2017 SSWM Operating Expense Study. We ask that the UAC advise the Council as to whether or not there is value added in a SSWM Expense Study in 2017-18.
- C. Water/Sewer Rate Structure. We ask that the UAC work with Staff and advise Council on the need for and if appropriate the scope of a review of the water and sewer utility rate structures.
- D. Water Systems. We ask that the UAC study and recommend a process for facilitating consolidation of small water systems. T
- E. Impact of Fire Code. We ask that the UAC study and recommend possible differential fire code requirements for urban and rural water systems.

Memorandum

To: COBI City Council
CC: Barry Loveless, Dir. Of Public Works
From: Utility Advisory Committee
Date: 7/19/2017
Re: SSWM Utility Operating Expense Study Recommendation

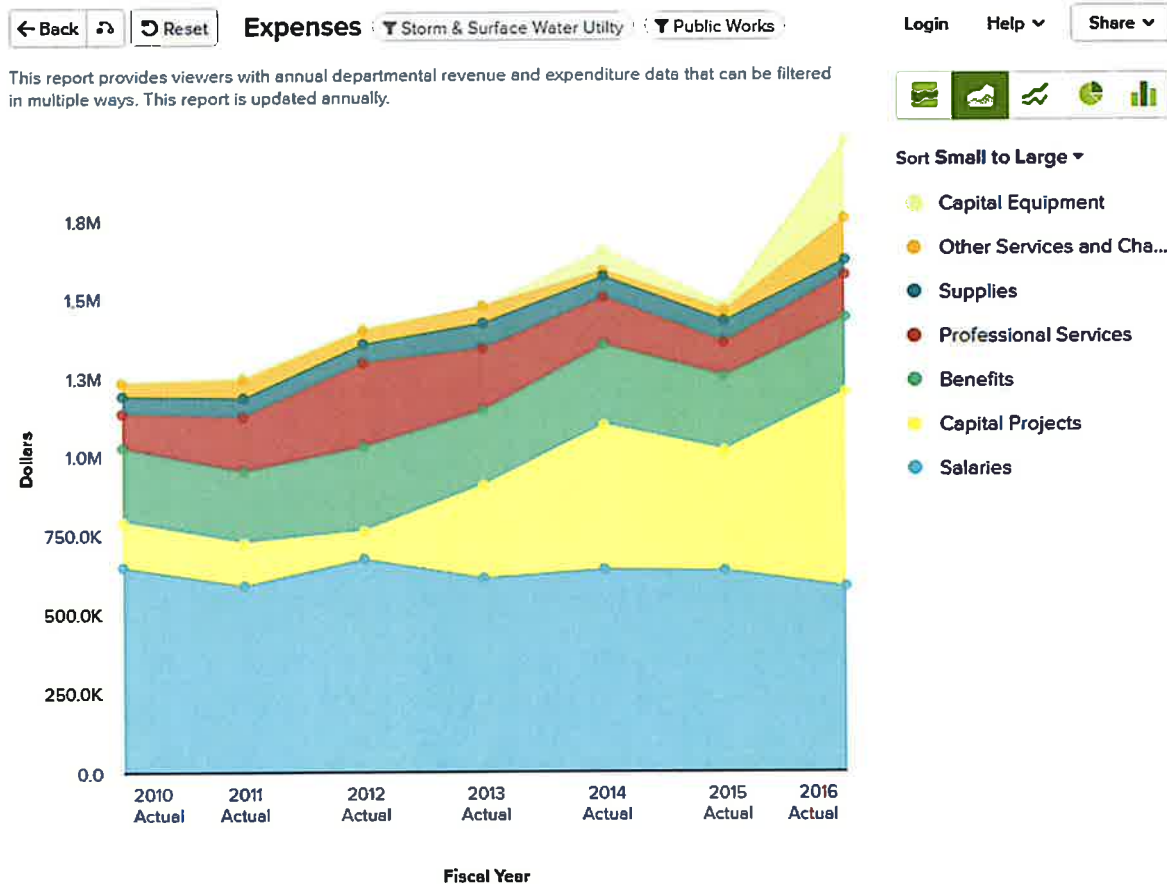
The UAC was tasked with advising City Council on the usefulness of a consultant study on the operating expense efficiency of the City SSWM utility. This study is already a \$50K line item in the current budget for next year.

The subcommittee charged with investigating this issue conducted a preliminary overview of the utility's operating expenses utilizing spreadsheets prepared by the Public Works Dept. and the OpenGov financial resources tools on the COBI website.

OVERVIEW OF SSWM OPERATING EXPENSES

As can be seen in the chart below, SSWM Utility operating expenses have increased noticeably in the past year, mostly due to an increase in CIP spending. It is worth noting that the small size of the SSWM utility means that any fluctuations in expense (an employee retiring, for example) causes a bump in overall spending not seen in larger budgets.

The Utility currently has a backlog of CIP projects that need to be undertaken in order to bring its infrastructure into satisfactory long-term operational condition. Because the utility has been operating at a loss for the past few years, CIP projects have been delayed. This has inevitably put upward pressure on spending.



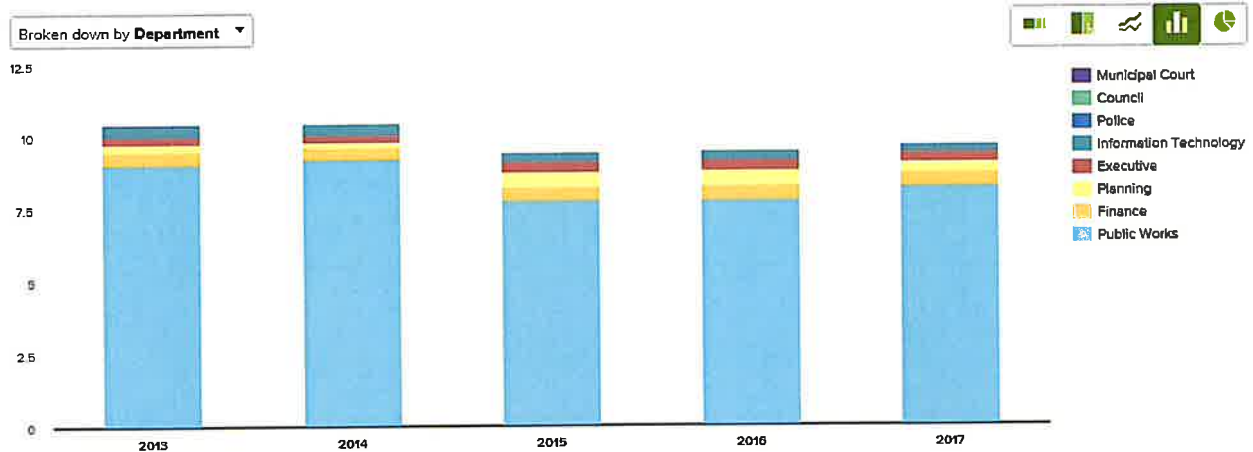
https://bainbridgeislandwa.opengov.com/transparency#/1230/accountType=expenses&breakdown=types¤tYearAmount=cumulative¤tYearPeriod=years&graph=stacked&legendSort=asc&proration=true&saved_view=2245&selection=9A89ECA5F4420344CB29ED92CB72FB44&year=NaN&fiscal_start=earliest&fiscal_end=latest

ALLOCATED OVERHEAD FTEs

One of the main issues raised by public comment at committee meetings was the cost allocation of employees not directly involved in the day-to-day operation of the utility itself. There has been some outcry that these costs unreasonably spread City overhead more to City-owned utilities that should be properly costed to the General Fund.

As can be seen in the graphs below, City overhead as a percentage of operating expenses has not been increasing over time. Currently, 2017 budgeted overhead FTEs totaled 1.41 FTEs (IT: .23 FTEs,

Executive: .33 FTEs, Planning: .36 FTEs, and Finance: .49 FTEs). This is a slight increase from 2014 budgeted overhead FTEs (1.22 FTEs), but a decrease from 2015 (1.65 FTEs).



<https://bainbridgeislandwa.opengov.com/data#/4418/query=3B4F99519A91985667CEEAD0B787FE>
B1

Budgeted FTEs for SSWM in the Public Works Department increased slightly this year from 7.81 FTEs in 2015 & 2016 to 8.28 FTEs for 2017. While other cities use other methods to bill the costs of administrative overhead to their various departments and utilities, we did not believe that the City's current structure showed any clear markers for a need for further investigation. Should Council want to review its current scheme of overhead cost allocation, we feel that it would be more efficient to do so in conjunction with the biennial cost structure review done as part of the development of the 2019-2020 budget, as it would be more efficient to address the issue across all cost accounts, rather than one utility at a time.

EMPLOYEE COSTS: Building Examiners

The one thing that caught our attention was the allocation of building employee FTEs to the utility. Even though the inspectors are tasked with controlling stormwater runoff at construction sites, we feel this task might be more fairly characterized as a building function, rather than a utility function. Development on the island engages a cross-section of City departments, but we believe they might better be expensed to Planning.

Currently there are two Building Inspectors and one Building Official each allocated to the SSWM at 0.07 FTE each. There is also a Construction Inspector billed to SSWM in the Public Works Dept. as 0.1 FTE. Altogether, this is a total of .29 FTE that probably should be allocated elsewhere.

CONCLUSION

The UAC did not identify a basis for a full-scale consultant study at this time. We believe that the best use of a consultant study would be as a comparative tool, to see how our operating expenses compare as a city against other comparable cities. A cursory examination of Mercer Island's operating expenses did not reveal major discrepancies between the two cities, although COBI does have slightly higher labor costs. We suggest that council members interested in examining the operating expense further take a look at the OpenGov information before hiring a consultant.

One of the difficulties of an across-the-board comparison is that every city's financial structure varies somewhat. Mercer Island outsources much of its SSWM utility work, for example. One should also consider that SSWM standards are changing, with standards becoming increasingly stringent, so the backdrop against which expenses are evaluated is also fluid.

Review of the overhead allocation of City costs is probably better addressed during the biennial review that is part of the 2019-2020 budget process.



Andrew Maron, Chair

Jeff Kanter, Vice Chair

Emily Sato

Jim Thrash

Nancy Nolan

Steve Johnson

Ted Jones



Date

City of Bainbridge Island

City Council Agenda Bill



PROCESS INFORMATION

Subject: 7:55 PM Soutter Property and Right-of-Way Vacation Proposal, AB 17-148 - Executive (Pg. 98)	Date: 8/15/2017
Agenda Item: NEW BUSINESS	Bill No.: 17-148
Proposed By: City Manager Doug Schulze	Referrals(s):

BUDGET INFORMATION

Department: Executive	Fund:
Expenditure Req:	Budgeted? Budget Amend. Req?

REFERRALS/REVIEW

:	Recommendation:
City Manager:	Legal: Yes Finance:

DESCRIPTION/BACKGROUND

This item relates to a proposal that has been brought to the City by a property owner, Sarah Soutter, the Bainbridge Island Metropolitan Park and Recreation District ("Park District"), and the Bainbridge Island Land Trust ("BILT"). Ms. Soutter wishes to donate a 10-acre parcel (see Exhibit A-2 attached) to the Park District, which will provide a valuable public benefit by increasing the size of the Grand Forest.

As part of the proposed transaction, Ms. Soutter is seeking to gain ownership of a 30-foot strip ("Strip") of right-of-way that was conveyed to the City earlier this year by Kitsap County. As shown in Exhibits A-1 and 3, the Strip runs north from Mandus Olson Road to the Grand Forest. Ms. Soutter currently uses the Strip as her driveway.

Historically, the County owned the Strip in fee title. See Exhibits 1 and 2. Because the property was surplus to the County's needs, and in consideration of the City's interest in jurisdiction over such "tax strip" property that was previously owned by the County, the County conveyed the property to the City for no cost other than the City assuming jurisdiction and responsibility for the property. The property records indicate that the Strip was never maintained by the County, and that the County never incorporated it into the County road system. The City doesn't currently have plans to use the right-of-way as part of the City's street system.

Under this proposal, the City Council would initiate a right-of-way vacation process via Resolution. As part of that process, if the Council determines that the criteria for a right-of-way vacation are met, including that the vacation is for the public benefit, the Council would vacate the right-of-way.

In that the City owns the property in fee title, under this proposal the next step would be for the City

Council to declare the property as surplus to the City's needs, and to authorize the City Manager to convey the property to the Park District.

Under this proposal, the Park District would then transfer the Strip to Ms. Soutter in exchange for public trail easements across the Strip and Ms. Soutter's other properties (which easements benefit the Grand Forest), as well as an emergency access easement benefiting the Park District.

At the same time, the BILT and Ms. Soutter would enter into a purchase and sale agreement for the 10-acre parcel ("Parcel") that is owned by Ms. Soutter that will be added to the Grand Forest. Subject to her receiving ownership of the Strip, Ms. Soutter has tentatively agreed to a bargain sale of the Parcel that will include a donation to the BILT worth more than \$300,000. When the purchase and sale of the Parcel is complete, the BILT would transfer the Parcel to the Park District subject to deed restrictions that will limit its use to passive, forested open space.

In sum, the proposal would proceed as follows:

1. The City Council would initiate a right-of-way vacation process by Resolution related to the Strip.
2. If the right-of-way is vacated, the City Council would declare the Strip (which the City owns in fee title) as surplus, and would authorize the City Manager to transfer it to the Park District.
3. The Park District would transfer the Strip to Ms. Soutter, subject to Ms. Soutter conveying to the Park District certain trail easements across the Strip and her other properties, as well as providing for emergency access.
4. The BILT and Ms. Soutter would enter into a purchase and sale agreement for the 10-acre parcel by which she would sell the parcel to the BILT and the sale would include a donation of over \$300,000.
5. The BILT would transfer the 10-acre parcel to the Park District, subject to a deed restriction to preserve the property as passive, forested open space.

It is likely that a number of public benefits would result from this proposal, including:

1. The addition of 10 acres to the Grand Forest Park, an increase of 4%, at no cost to the public.
2. Permanent preservation of the Parcel, which has significant conservation values, including a wetland and stream contributing to Issei Creek, mature forest, and sloping terrain that creates a critical view shed for users of the Grand Forest trail system, proximate to two sides of the Parcel.
3. The ability to create a new access trail for the Grand Forest from Mandus Olson Road.
4. The ability to create a loop trail within the 10 acres adding to the Grand Forest trail system.
5. The establishment of an emergency access easement for the Park District to the Grand Forest from Mandus Olson Road.

City staff has included a draft timeline with dates related to the proposed right-of-way vacation. See Exhibit 4. Although the draft timeline is preliminary, it provides a sense of possible timing based on requirements in the City's Municipal Code (Chapter 12.34 BIMC) and state law (Chapter 35.79 RCW).

At this time, staff is bringing the proposal to the Council for initial consideration and discussion.

RECOMMENDED ACTION/MOTION

For informational purposes to consider the proposal.

ATTACHMENTS:

Description

Type

▣	Exhibit A-2	Backup Material
▣	Exhibit A-1	Backup Material
▣	Exhibit 3	Backup Material
▣	Exhibit 1	Backup Material
▣	Exhibit 2	Backup Material
▣	Exhibit 4	Backup Material

EXHIBIT A-2

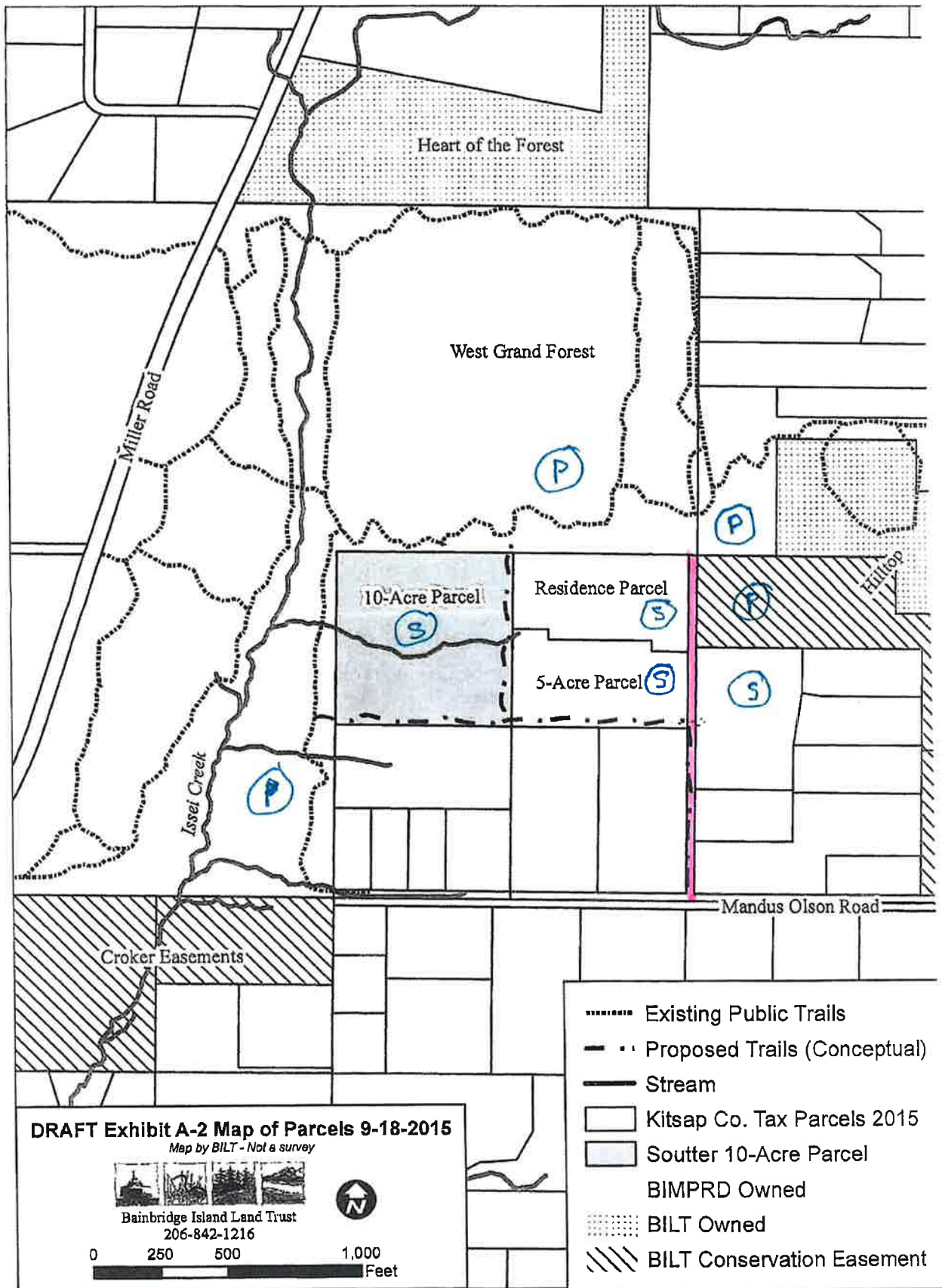




Exhibit 3

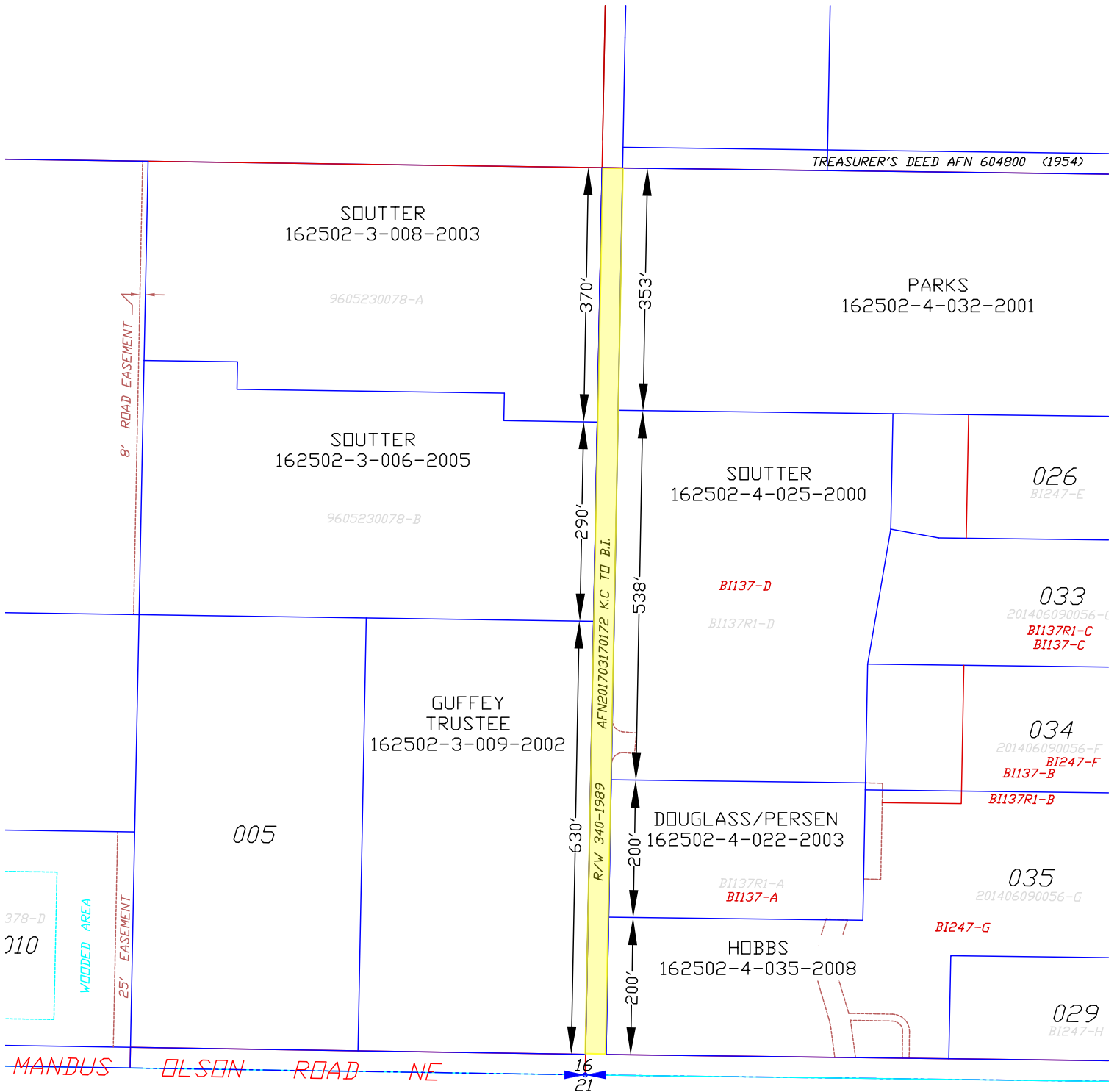
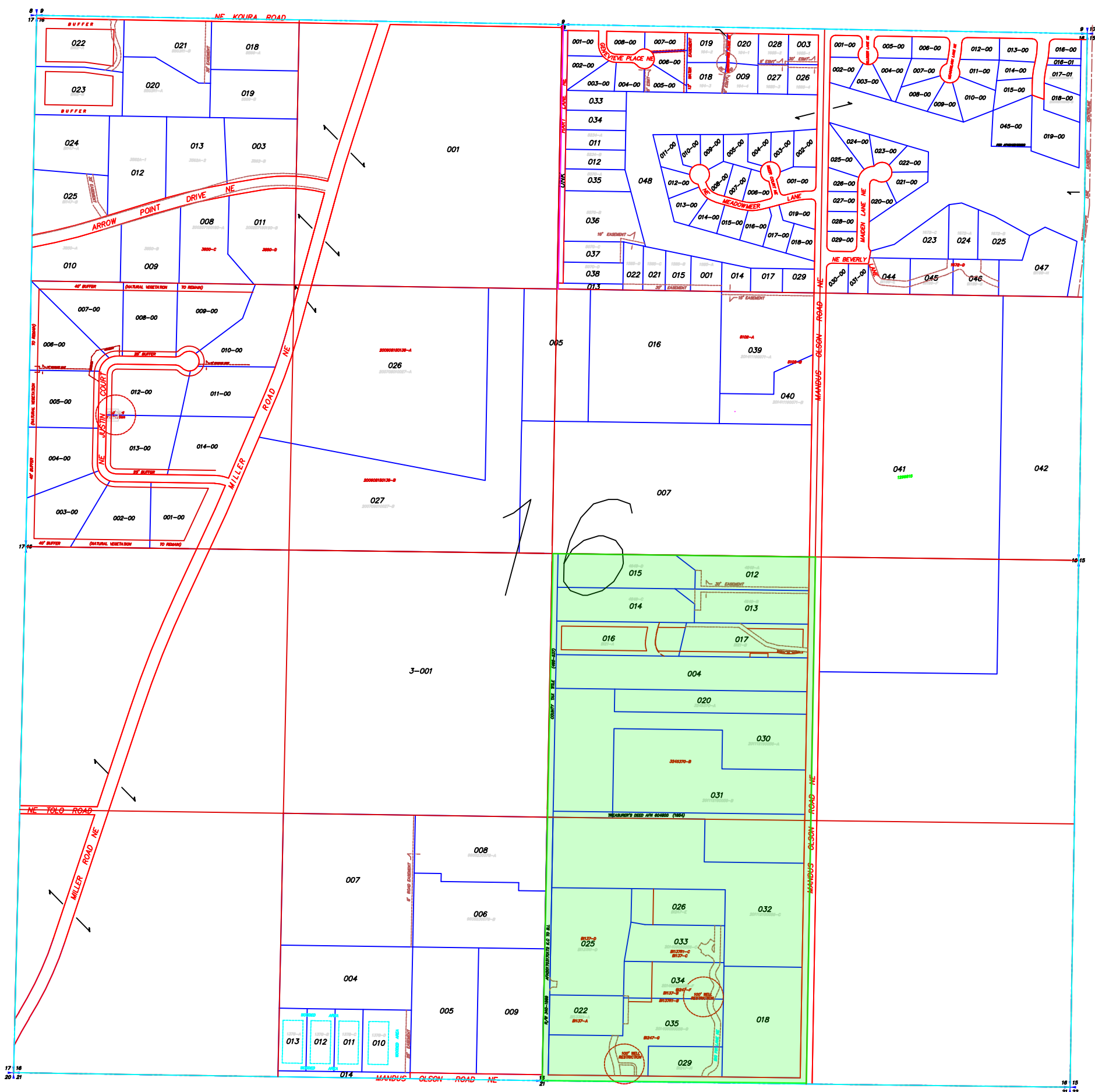


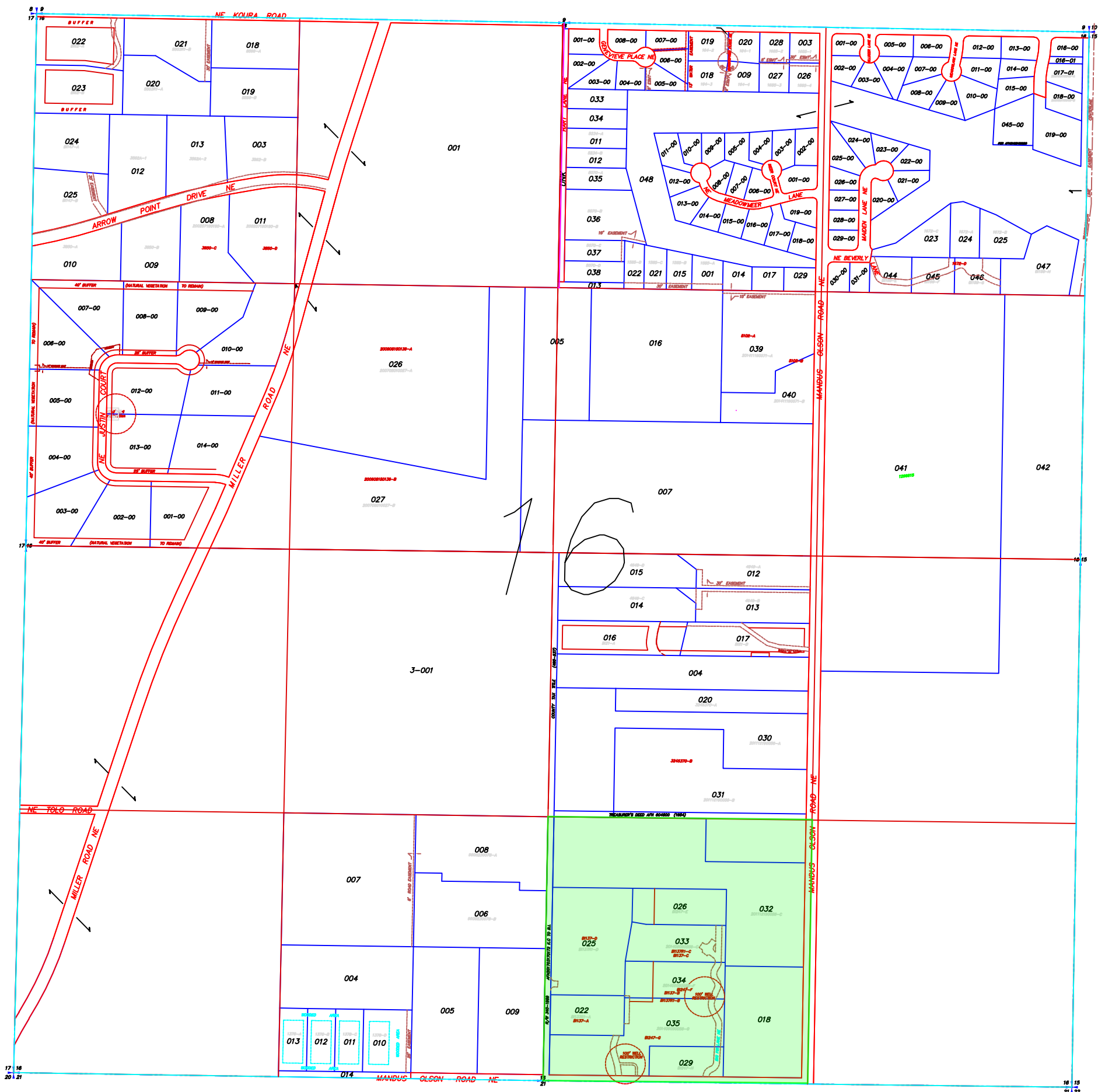
Exhibit 1



Treasurers's Deed
to
Kitsap County
October 31, 1938
AFN 286781
Volume 239, Pages 136-167

SW 1/4 of the SE 1/4
Section 16

Exhibit 2



SW 1/4 of the SE 1/4
Section 16

Exhibit 4

DRAFT TIMELINE

PROPOSED START DATE:		9/1/2017	
ACTIVITY	START	END	NOTES
Initiate ROW Vacation	9/1/2017		
Application	9/4/2017	9/4/2017	
Survey Work	9/5/2017	9/20/2017	
Contact Property Owners for Petition Signatures	9/6/2017	9/8/2017	
Mail Comment Letters	9/6/2017	9/18/2017	
Submit Application	9/24/2017	9/24/2017	
Review Application	9/25/2017	9/27/2017	
Prep Agenda Bill	9/28/2017	9/29/2017	
Resolution to Set Hearing Date	10/12/2017	10/12/2017	
Mail Notice of Hearing	10/14/2017	10/14/2017	
Post Notice of Hearing	10/14/2017	10/14/2017	
Council Approves Vacation	10/24/2017	10/24/2017	
ROW Vacation is Recorded	11/8/2017	11/8/2017	