PARKS & RECREATION COMMISSION AGENDA

Thursday, February 06, 2020

Mercer Island Community & Event Center
8236 SE 24th St | Mercer Island, WA 98040
Phone: 206.275.7706 | www.mercergov.org

PARKS & RECREATION COMMISSION: OTHER BUSINESS
Chair: Rory Westberg
Vice Chair: Jodi McCarthy
Members: Sara Berkenwald, Don Cohen, Lyn Gualtieri, Amy Richter, Kirk Robinson

In compliance with the Americans with Disabilities Act, those requiring accommodation for meetings should notify the Staff Liaison at least 24 hours prior to the meeting.

CALL TO ORDER & ROLL CALL

MINUTES

1. Approve the Minutes of the following meetings:

    A. December 5, 2019
    B. December 17, 2019
    C. January 8, 2020

APPEARANCES

REGULAR BUSINESS

2. Director's Report
3. Capital Project Overview
4. ADMP Trail Safety Improvements
5. Next Meetings:

    Tuesday, March 3, 2020, 5:30pm to 7pm - Joint Study Session with City Council
    Thursday, March 5, 2020, 6:30pm to 8:30pm - Regular Meeting

OTHER BUSINESS

6. Commission Workplan/Planning
7. Department Workplan

ADJOURN

PARKS & RECREATION COMMISSION SPECIAL MEETING MINUTES January 8, 2019

Call To Order:

Vice-Chair McCarthy called the meeting to order at 5:41 pm at the Mercer Island Community and Event Center, 8236 SE 24th St., Mercer Island, WA 98040.

Roll Call:

Commissioners Don Cohen, Amy Richter, Sara Berkenwald, Jodi McCarthy, Rory Westberg and Lyn Gualtieri were present.

Staff present were Ryan Daly, Parks and Recreation Interim Director, Paul West, Capital Projects and Planning Manager, and Tammy Bodmer Senior Administrative Assistant.

Appearances:
none

Regular Business:

1. **PROS Plan Survey**
   Staff presented a revised version of the PROS Plan survey.
   Steve Duh with Conservation Technix introduced himself and gave an overview of the intent of the survey and how we came about the current version.

   Commissioners conducted a final review of the survey.

   At 6:31, Chair Westberg made a motion to adjourn the meeting and reconvene after the joint arts council meeting. Commissioner Richter seconded the motion. Motion passed.

Call To Order:

Chair Westberg called the meeting back to order at 8:40 pm. Commission Berkenwald was absent.

Regular Business:

1. **PROS Plan Survey**
   Commissioners continued discussion regarding the PROS Plan Survey and implementation process.

   Commissioner Cohen made a motion to approve staff to move forward with survey finalization and implementation. Commissioner McCarthy seconded the motion. Motion passed 5-0.

Next Meeting
The next meeting is scheduled for February 6, 2020 at the Mercer Island Community and Event Center.

Adjournment: 9:16 pm

PARKS & RECREATION COMMISSION
REGULAR MEETING MINUTES
December 5, 2019

Call To Order:

Chair Westberg called the meeting to order at **6:30** pm at the Mercer Island Community and Event Center, 8236 SE 24th St., Mercer Island, WA 98040.

Roll Call:

Commissioners Rory Westberg, Sara Berkenwald, Don Cohen, Lyn Gualtieri, Amy Richter, and Jodi McCarthy were present.

Mayor Bertlin was **present.**

Staff present:
Ryan Daly, Parks and Recreation Interim Director
Tammy Bodmer, Senior Administrative Assistant
Alaine Sommargren, Parks Maintenance Manager
Kim Frappier, Natural Resources Specialist
Andrew Prince, Trails and Urban Forestry Specialist
Sarah Bluvas, Arts and Culture Coordinator

Minutes
Minutes from 11/7/19 meeting were presented. Commissioner McCarthy motioned to accept the minutes and Commissioner Cohen seconded the motion. Motion passed 6-0.

Appearances:
No appearances.

Regular Business:

1. **Director's Report**
   Daly gave the director's report. PowerPoint is attached to agenda packet.

2. **ADMP Update**
   Daly reported that City Council adopted the Aubrey Davis Master Plan

3. **Parks & Open Space Operations**
   Sommargren, Frappier and Prince presented on duties preformed in Natural Resources. PowerPoint is attached to agenda packet.

4. **PROS Plan Survey**
   Commissioners and staff reviewed comments and suggestions that Commissioners submitted regarding the upcoming PROS Plan Survey that will be sent out to the community.

   At 8:42 pm Chair Westberg called for a motion to extend the meeting if needed. Commissioner McCarthy motioned to extend the meeting to 9:00 pm in order to finish the survey discussion. Commissioner Richter seconded the motion. Motion passed 5-0.

   Discussion continued regarding changes to the survey.

5. 2020 Draft Meeting Schedule was shared with Commissioners and will be posted to website.

Next Meeting
The next meeting is scheduled as a joint meeting with the Arts Council at their regularly scheduled meeting for Wednesday, January 8th, at 6:30 pm, at the Mercer Island Community and Event Center.

Other Business:
None

Adjournment: 9:08 pm

PARKS & RECREATION COMMISSION SPECIAL MEETING MINUTES December 17, 2019

Call To Order:

Chair Westberg called the meeting to order at 5:32 pm at the Mercer Island Community and Event Center, 8236 SE 24th St., Mercer Island, WA 98040.

Roll Call:

Commissioners Rory Westberg, Don Cohen, Lyn Gualtieri, Amy Richter, and Jodi McCarthy were present.

Commissioner Sara Berkenwald was absent.

Mayor Bertlin was absent.

Staff present were Ryan Daly, Parks and Recreation Interim Director, and Sarah Bluvas, Arts & Culture Coordinator.

Cohen moved to amend the agenda to include public appearances and Gualtieri seconded the motion. The motion passed unanimously.

Appearances:
Peter Struck encouraged the P&R Commission to engage the community as much as possible in the PROS Plan process.

Regular Business:

1. **PROS Plan Survey**
   Staff presented a revised version of the PROS Plan survey, and Commissioners conducted a third review.

   McCarthy moved to extend the meeting to 7 pm, and Richter seconded the motion. It passed unanimously.

   Staff will bring an updated, final survey to the next meeting for final review and approval.

Meeting is adjourned at 7:03 pm.

Next Meeting
The next meeting is scheduled as a joint meeting with the Arts Council at their regularly scheduled meeting for Wednesday, January 8, at 6:30 pm, at the Mercer Island Community and Event Center.

Adjournment: 7:03 pm

CITY OF MERCER ISLAND

Parks & Recreation Department

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7870 | www.mercergov.org

Parks and Recreation Commission
February 6, 2020

Capital Projects Overview

To: Parks & Recreation Commission

From: Paul West, Capital Projects and Planning Manager

Date: January 30, 2020

Mercer Island Parks and Recreation (MIPR) has a robust capital work plan in 2020. The table below summarizes eight main projects. It is notable that most of the projects listed have a grant or levy component. More detailed descriptions of two projects, Luther Burbank Dock Repair and Reconfiguration and South Mercer Backstop Upgrades follow. Three other non-park projects are summarized to illustrate the additional capital workload that comes from outside of the department. This report concludes with an outline of the Parks and Recreation Commission's anticipated role in various capital projects.

2020 MAIN CAPITAL PROJECTS		
Description	**Budget**	**Status/Issues**
PROS Plan *Implement a community-driven process to update the PROS plan as a document that reflects the community values for parks and recreation while providing a guiding document for parks-related investment*	$175,000	Survey launch early Feb; Open House #1 on April 18; facilities assessment underway; funded through operating budget
Aubrey Davis Park Trail Safety Improvements *Design and construct a project using a $500k WA Dept. of Commerce grant in accordance with the Aubrey Davis Park Master Plan*	$525,000	Commission makes a scope of work recommendation to City Council in March; grant does not cover project management; DOC takes 2% for administration

Luther Burbank Park Dock Repair & Reconfiguration Design *Three year project to redesign the main dock at Luther Burbank Park consistent with the 2006 Master Plan*	$261,000	hiring consultant; includes $173k RCO grant funding; requires DNR approval
South Mercer Playfield Backstop Upgrades *Collaborate with stakeholders to design and construct improvements to reduce stray foul balls*	$308,000	Developing stakeholder consensus on scope of work
Lincoln Landing Improvements Design *water quality vault and stream channel reconfiguration in the street end on 76th Ave SE*	$112,000	Refining 90% design; fully grant funded; construction est. $600k.
Luther Burbank Park Irrigation Intake Design *Design and permitting of a system to develop Lk Wash water rights for irrigation of park landscapes*	$68,000	30% design is out for DNR review; Levy funded.
Luther Burbank Park Waterfront Plaza Repairs *Repair of broken masonry and pavers along the bulkhead next to the Boiler Building*	$35,000	Out to bid; Levy funded; work done in conjunction with the repair of ***Handsome Bollards*** artwork
Luther Burbank Park South Shoreline Trail Reroute *Construct a new trail alignment between the Waterfront Plaza and the Swim Beach to create an accessible route and reduce impacts to the lake shoreline*	$120,000	In permitting; Levy funded; work to be done in-house with seasonal crews and volunteers

LUTHER BURBANK PARK DOCK REPAIR AND RECONFIGURATION

Background

The main dock at Luther Burbank Park was constructed in 1974. The dock is a fixed-pier design, with multiple fingers and a concrete deck supported by wood pilings. The overall height of the dock varies, with finger pier heights ranging from about 2’ to 3’ above the water, depending on the seasonal variability of lake height levels.

Figure 1: Luther Burbank main dock in 2017

In 2014, the City completed an Overwater Structures Assessment, which included an evaluation of the docks at Luther Burbank Park. The findings identified extensive rot in the cap beams (see Exhibit 1) and a recommendation to perform repairs by 2017. Staff developed construction specifications in 2016 for the repairs and sought permits for what was anticipated to be a $350k project. Given that the cap beams were not the only repairs needed, the project was suspended pending a discussion about the future of the docks.

Planning Process and Design/Repair Alternatives

This planning and design work is the first step in what will be a multi-year project. The project scope is anticipated to include the following:

- **Updated structural assessment:** Updating the findings and analysis of the 2014 Overwater Structures Assessment. Engineering information from this phase of work will be used to inform repair/replacement design scenarios.
- **Coastal engineering analysis:** This is a critical engineering component of the project and will determine what opportunities exist for dock re-design and reconfiguration. In particular, the consulting team will evaluate the feasibility of installing floating docks.
- **Additional public engagement:** Ongoing community engagement is a top priority as repairs and modifications to dock facilities are considered. This is especially important considering the volume of local and regional visitors to Luther Burbank Park and the many desired uses for the dock facilities.
- **Design alternatives:** The structural assessment and ongoing community engagement process will be used to inform design alternatives for consideration by the Parks and Recreation Commission and City Council. These alternatives will include planning level cost estimates and anticipated project timelines.

- **Intermediate design and permitting:** After a recommended dock design is selected, plans and specification will be developed with sufficient detail to initiate the permitting process.

The planning and design process described previously is intended to be iterative, with opportunities to be scheduled for input and direction as the planning work progresses.

Project Timing, Permitting and Funding

Project Timeline is currently anticipated as follows:

- 2020: Conceptual Design to 30% Design
- 2021: Permitting to 90% Design
- 2022-23: 100% Design, secure funding sources and bidding
- 2024: Construction

This planning analysis will also consider the permitting timeline and subsequent challenges related to dock repair and construction. The permitting process is complex, and depending on the type of work, the timeline is lengthy, with permits for a new or differently configured dock typically requiring a full year (or more) before final issuance. There are multiple agencies involved in dock permitting – the City of Mercer Island, the Washington State Department of Fish & Wildlife, and the U.S. Army Corps of Engineers. The dock is located on Washington State Department of Natural Resources shorelands that the City leases for public access. All projects must also be reviewed by that agency prior to permitting. Given the long lead time for a project of this nature, it is important to complete the conceptual planning and design work this year to inform the development of the long-term project schedule and identify the fiscal resources needed to complete this project.

The total cost for construction of this project could be on the order of three million dollars. The Washington State Recreation and Conservation Office (RCO) administers several grant programs that would be the backbone of the funding strategy for construction. Additional funding for specific aspects of this work could come from Washington State Parks, King County and private grant sources. Even with a successful funding campaign, it is likely that the City will need to allocate close to one million dollars to complete the project. Part of the planning work will be to explore all potential revenue sources.

Public Engagement and Demand Analysis

Public engagement regarding the future of the shoreline and the docks at Luther Burbank Park dates back to 2006, when the Luther Burbank Park Master Plan was adopted. The Master Plan calls for a reconfiguration of the main dock at the waterfront plaza “with a lower floating dock with improved finger piers for small motor craft, ‘human powered’ boats and a motorized launch boat storage.” Staff analysis since the adoption of the Master Plan indicates that a floating dock would in fact expand access and improve usability of the Luther Burbank dock.

In the summer of 2017, a time-lapse video assessment was performed, providing insight into how the dock is currently used. The vast majority of the boats utilizing the dock were small power boats, typically under 25' in length. These boaters most often tied up to the lower finger piers, which have wide wood edges. On occasion, larger boats tied up to the main piers, which sit much higher above the water and have abrasive concrete edges. There is also a scarcity of cleats along the dock perimeter, making tie-ups difficult. Kayaks, paddle boards, and other "human-powered" watercraft were not regularly observed using the dock, which is unfortunate considering the demand and popularity of these types of water activities. The piers simply sit too high above the water to make this type of use practical.

In 2018, Parks and Recreation staff conducted a survey of dock users and hired a consultant to conduct an analysis of demand for recreational moorage (Exhibit 2). That work also developed a preliminary schematic plan for the dock and a rough-order-of-magnitude cost estimate for construction to support the RCO grant which is funding this design work. This preliminary work was for scoping purposes and is not intended to guide the design process.

Going forward, Parks and Recreation staff plan to conduct public outreach in the summer of 2020 to gain input from dock users on project alternatives. This will inform conceptual design(s) that will be brought to Parks and Recreation Commission in the fall of 2020.

SOUTH MERCER PLAYFIELD BACKSTOP UPGRADES

South Mercer Playfield softball fields #1, 2, and 3 are arranged in a cloverleaf configuration. See Figure 1.

Figure 2: South Mercer Playfields #1, 2 and 3

Foul balls from batters at home plate arc over the existing backstops and land in the area between the fields where players and spectators congregate. This has the potential to cause serious injury to people. Since the source of the errant foul balls could be from any of the three fields, the incidence of stray balls in the spectator area is unpredictable. The area that is affected extends to the concession stand on the west side of the restroom building and to the first row of parking stalls in the parking lot. Cars have been damaged by foul balls and participants avoid parking in those spots as a result. It also encompasses a landmark tree in the middle of the cloverleaf.

Background

South Mercer Playfield (SMP) is the property of Mercer Island School District (MISD). Recreational facilities on this property have been developed by Mercer Island Parks and Recreation (MIPR) in conjunction with MISD.

1986 Softball fields at SMP were first built by MIPR under a 1985 interlocal agreement with MISD.

2009 Synthetic turf was added to the three infields closest to the parking lot; they went into service in spring 2010.

2011 The original clamshell backstops were retrofitted with pole extensions to support new chain link fencing and nylon netting to provide a 23’ high barrier to foul balls.

2013 MIPR engaged R. W. Droll and Associates to provide an analysis of the current situation and options for addressing the foul ball problem. They produced a memo outlining several solutions. See Exhibit 3.

2015 MIPR developed a joint project with Mercer Island Little League and King County to put netting over the bleachers in three locations. This project was later cancelled because the Little League board believed it would not adequately address the problem.

2018 Mercer Island City Council included a $300k project in the 2019-20 capital budget to upgrade the backstops in 2020. MIPR engaged D. A. Hogan and Associates to provide conceptual planning for these upgrades.

2020 On January 16, stakeholders met to discuss options for these upgrades. Representatives from MISD, MIPR, Boys and Girls Club, Mercer Island Little League, Mercer Island Parks and Recreation Commission were present. A representative from Stroum Jewish Community Center (JCC) was invited but could not attend because of illness. He was subsequently briefed on the meeting.

Analysis of Options

At the January 16 meeting, Eric Gold, principal at D. A. Hogan provided an overview of the problem and showed examples of four projects that employed three different solutions. They can be summarized as follows:

1. Build new backstops that are substantially taller
2. Suspend netting over and behind home plate to intercept foul balls as they ascend
3. Suspend netting over the spectator areas to intercept foul balls as they descend

In further exploration of Option 1, Mr. Gold said that his firm currently considers 30 foot tall backstops as a standard height. He showed an example of this at Monroe High School. He also showed an example of Auburn High School where a 50 foot tall backstop was installed. Associate Principal Nick Wold provided his first-hand experience with the Monroe High School backstops. He said that foul balls were a problem with the 30 foot tall backstop.

Option 1, potentially the mid-range cost solution, also has the added complication that replacing the backstops would impact the synthetic turf. Since the synthetic turf is 11 years old, the most efficient way to do this project would be to do both the turf and the backstops at the same time. Option 2, while possibly the lowest cost solution, affects game play. Foul balls that hit the net over home plate would be out-of-play. This takes away an element of competitive play. No stakeholder said this was a deal breaker, but that it was not desirable. Option 3 is the most costly solution, requiring many posts and a large area of netting to be effective. Netting just the bleachers has already been rejected as too limited to address the problem. Option 3 also raises the question of how to deal with the landmark tree.

All options require new posts to be installed that are substantially larger than the ones supporting the current backstops. To obtain permits, they have to be engineered for wind and snow loads. Mr. Gold also explained that the current backstops are near the end of their useful lives. They are showing signs of metal fatigue, and ultraviolet light damage typically causes the netting to fail after 10 years.

The available budget of $300,000 is not enough to do any of the three solutions to all of the fields. Once options are narrowed, D. A. Hogan can provide further analysis of cost to one or two options that seem most likely to be successful.

NON-PARK CAPITAL PROJECTS THAT AFFECT PARKS

Parks and Recreation facilities are subject to capital projects that originate outside of our department. Nevertheless, they require staff involvement to protect the facilities and advocate for the recreational interests of Mercer Island citizens. Current projects are outlined below.

2020 NON-PARK PROJECTS		
Project	**Lead Agency**	**Parks Role**
Mercer/Entatai Sewer Interceptor *Regional project to install a new*	King County Wastewater	Coordinate with Aubrey Davis Master Plan; review landscaping,

sewer line under the Mountain to Sound Trail from ICW to EMW		tree replacement, trail restoration, staging; seek approval from RCO for non-recreational use of RCO-funded project sites
West Mercer Way Crossings *Upgrade existing MTS trail crossing and design a new crossing at Lid C field driveway*	MI Public Works	Coordinate with Aubrey Davis Master Plan; review landscaping; explore art/placemaking options
ADA Transition Plan *Complete a City-wide plan for accessibility needs in City programs and facilities*	MI City Manager	Parks manage the majority of public facilities and many programs that will be the subject of this plan

PARKS AND RECREATION COMMISSION'S ROLE IN CAPITAL PROJECTS

It is beneficial for all involved for the Parks and Recreation Commissioners to be familiar with the main active capital projects. At minimum, the Commission will receive status updates when there is substantial progress or an issue to report. For larger projects and project that merit extensive community engagement, Parks and Recreation staff will seek more routine involvement of the Commission and provide a higher level detail. The table below outlines our current thoughts on Commission involvement for this year.

2020 PARKS AND RECREATION COMMISSION'S ANTICIPATED ROLE IN CAPITAL PROJECTS	
Description	**P&R Commission involvement**
PROS Plan *Implement a community-driven process to update the PROS plan as a document that reflects the community values for parks and recreation while providing a guiding document for parks-related investment*	Primary guiding body; monthly status reports; special topic items; special meetings; liaison role with stakeholder groups; transmit recommended draft plan to City Council for adoption
Aubrey Davis Park Trail Safety Improvements *Design and construct a project using a $500k WA Dept. of Commerce grant in accordance with the Aubrey Davis Park Master Plan*	Evaluate options and make scope recommendation to City Council; receive periodic status updates; special topic discussions
Luther Burbank Park Dock Repair & Reconfiguration Design *Four year project to redesign the main dock at Luther Burbank Park consistent with the 2006 Master Plan*	Representative participates in stakeholder scoping process; receive periodic status updates; special topic discussion; make recommendation to City Council
South Mercer Playfield Backstop Upgrades *Collaborate with stakeholders to design and construct improvements to reduce stray foul balls*	Representative participates in stakeholder scoping process; receive periodic status updates

Lincoln Landing Improvements Design *water quality vault and stream channel reconfiguration in the street end on 76th Ave SE*	Receive periodic status updates
Luther Burbank Park Irrigation Intake Design *Design and permitting of a system to develop Lk Wash water rights for irrigation of park landscapes*	Receive periodic status updates
Luther Burbank Park Waterfront Plaza Repairs *Repair of broken masonry and pavers along the bulkhead next to the Boiler Building*	Receive periodic status updates
Luther Burbank Park South Shoreline Trail Reroute *Construct a new trail alignment between the Waterfront Plaza and the Swim Beach to create an accessible route and reduce impacts to the lake shoreline*	Receive periodic status updates

NEXT STEPS:

Staff requests the following:

1. Clarifying questions about the projects described.
2. Feedback on P&R Commission's level of involvement and other ways commissioners would like to be involved.

MERCER ISLAND PARKS

OVERWATER STRUCTURES ASSESSMENT

DRAFT REPORT
May 30, 2014
OAC No. 2014-001

Prepared for
City of Mercer Island
Parks and Recreation Department

Prepared by
OAC Services, Inc.
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May 30, 2014

Jason Kintner
Parks Superintendent
Mercer Island Parks and Recreation
2040 84th Avenue SE
Mercer Island, Washington 98040

Re: **Mercer Island Parks – Overwater Structures Assessment**

Mr. Kintner:

Please find enclosed our draft report "Mercer Island Parks – Overwater Structures Assessment", dated May 30, 2014. The purpose of this report is to summarize our review of specific overwater and shoreline structures at Luther Burbank Park, Clarke Beach Park, and Groveland Park.

Please call with any questions or concerns relative to the contents of the report.

Sincerely,

Lee Dunham, PE SE
Principal
Forensic Architecture and Engineering Group
OAC Services, Inc.

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Purpose of Report

The purpose of this report is to provide a condition assessment of specific overwater and shoreline (on-grade) structures at three Mercer Island waterfront parks: Luther Burbank Park, Clarke Beach Park, and Groveland Park. The general scope of assessment was directed by Mercer Island Parks.

1.2 Scope of Services

The scope of services for this project included detailed engineering field observations, underwater inspection of piers, bulkheads and other structures by a dive team, preliminary cost analyses and the writing of this summary report.

1.2.1 Consultant Team, Field Work

The consultant team for this assessment was led by OAC Services Inc. (OAC) who provided project management for the assessment under the direction of the Mercer Island Parks Department, as well as all structural engineering review and assessment. Review and assessment of shoreline structures was provided by Associated Earth Sciences, Inc. (AESI). Underwater inspections were carried out by Waterfront Construction, Inc. (Waterfront).

Visual review of overwater and shoreline structures was carried out by the consultant team on the following dates: March 13, 2014 (OAC recon at all three parks with Parks Department); March 18, 2014 (engineering observations and dive inspections at Luther Burbank); March 19 and April 3, 2014 (engineering observations and dive inspections at Clarke Beach and Groveland).

1.2.2 Preliminary Cost Analysis

Based on the data obtained from the fieldwork, preliminary cost estimates were generated and provided to Mercer Island Parks for budgeting purposes on April 22, 2014. These cost estimates are included (and where appropriate expanded upon) in this report.

1.2.3 Report

Findings from engineering field assessments and dive inspections are summarized in this report. Reference Section 2 for general park summaries, Section 3 for a general ranking of remediation priority, and the appendices at the end of the report for detailed observations, structure ratings, short and long term remediation options and associated preliminary cost estimates.

<u>General Note on Overwater Structures</u>

For the purpose of this report, the assessed overwater structures are broken down into two categories: *the superstructure*, which includes the decking and all elements above (decking, concrete slabs, fascia, rails, cleats, etc.) and the *substructure*, which includes all elements below the deck (timber stringers, pile caps / beams, timber piles, bracing, etc.). All wood elements discussed are understood to be pressure-treated, unless otherwise noted. The terms “pier” and “dock” are

typically used interchangeably, however the term “pier” was selected as the predominant default to describe structures extending from the shoreline over the water.

2 PARK SUMMARIES

2.1 Luther Burbank Park

Located at 2040 84th Avenue SE, Luther Burbank Park encompasses approximately 75 acres at the north side of Mercer Island. The assessment did not include review of park structures north of the concrete bulkhead adjacent to the large pier.

2.1.1 Shoreline Structures

From north to south, shoreline structures present at Luther Burbank Park include approximately 200 feet of concrete bulkhead, approximately 975 feet of natural shoreline, and approximately 85 feet of shoreline located along a swimming beach. The concrete bulkhead is in generally good condition with no significant undermining observed. Brick work observed on the ground surface directly behind the bulkhead exhibited some chipped, missing, or uneven brick surfaces, particularly toward the south end of the bulkhead. This presents a tripping hazard as well an aesthetic problem. The south end of the bulkhead is located near the toe of a hill traversed by a gravel-surfaced maintenance road. The maintenance road is steeply inclined and its surface is subject to erosion by runoff flowing down its length. This has resulted in rilling of the road surface and accumulation of mud and ponded water behind the bulkhead at its south end. The accumulation of mud and standing water presents a problem for area pedestrian traffic and access to the adjacent dock. At least a portion of the runoff flowing down the maintenance road appears to originate as emergent seepage (springs) within the road and adjacent area. Control of the runoff is recommended to mitigate the erosion problem in this area.

Beginning near the south end of the bulkhead, a pedestrian path extends south along the natural shoreline between the south end of the bulkhead and the swimming beach at the south end of the park. A portion of the trail was very muddy at the time of our visit. Placement of filter fabric overlain by cedar chips or crushed rock is recommended in the wet portions of the trail to provide a relatively dry, mud-free surface for pedestrian traffic. The swim beach at the south end of the park appears to be constructed of imported sand. The surface of the beach is rilled due to erosion by runoff. We observed runoff flowing across the beach even though our site visit coincided with a period of dry weather. This suggests that a portion of the runoff originates as spring flow. Control of this runoff is recommended to mitigate beach erosion in this area.

2.1.2 Overwater Structures

From north to south, overwater structures at Luther Burbank Park include a large multi-fingered pier, a small pier, and timber mooring piles (not ‘overwater’ per se but included here). Both the piers are of similar construction, which consists of precast concrete “double T” deck slabs spanning along the main axis of the pier supported by timber cap beams and timber piles. The piles are braced with diagonal timbers and battered piles. The large pier has various finger slips consisting of diagonal wood decking on treated timber beams and piles. Overall, the concrete slabs are in relatively good condition with only minor spalling and cracking. The timber piles supporting the piers appear to be treated with creosote and are in

good overall condition. Structural concerns at these piers relate to the timber cap beams, some of which are exhibiting decay at the exposed beam end. As well, the cap beams are shimmed at the piles with what appears to be untreated plywood, and these shims are exhibiting decay. Wood decking at the smaller fingers is weathered but not generally decayed. The series of mooring piles located south of the small pier have advanced decay at the waterline and require repair if they are to be used in the future.

Detailed descriptions of our observations, recommended mitigation, figures, and photographs showing key features are included in Appendix A.

2.2 Clarke Beach Park

Clarke Beach Park encompasses roughly 8 acres on the south east side of Mercer Island between E. Mercer Way and Lake Washington.

2.2.1 Shoreline Structures

Beginning at the north end of the park, shoreline structures at Clarke Beach include approximately 60 feet of asphalt paved path. The edges of the path adjacent to the water are supported by sheetpiles with a concrete pile cap. A portion of the asphalt pavement along the edge of the path has settled. The area south of this path consists of an enclosed swimming area ("Kids' Swim Area"). The shoreline within the swimming area consists of concrete stairs that extend down into the water. The stairs appear to be in good condition with no damage observed. The kids' swimming area is enclosed by a sheetpile wave break that extends out into the lake. The sheetpiles appear to be in generally good condition, but they have exposed sharp edges that could be hazardous to swimmers. They are also constructed with "fish windows". In addition to potentially sharp edges, the fish windows could present a potential trapping hazard to swimmers. The sheetpile wave break is constructed with a wooden cap that is heavily weathered. South of the swim area is approximately 150 feet of shoreline with a rock bulkhead. This bulkhead, like the other rock bulkheads at this park, is constructed as a riprap rock revetment rather than the more typical stacked rock bulkhead. Large voids are present between the rocks indicating that some shifting has occurred. Some rocks have also toppled into the lake. Asphalt pavement has been placed over a portion of the riprap bulkhead near its south end. This appears to have been placed in an attempt to stabilize the rock.

Another section of concrete stairs extends down into the water along the portion of shoreline south of the rock bulkhead. These stairs have been severely undermined by wave action. This has resulted in some cracking of the concrete. Beginning approximately 85 feet south of the bulkhead, a sheetpile wall has been installed at the toe of the concrete stairs. The sheetpile wall extends south approximately 65 feet to the south end of the stairs. A concrete cap has been placed along the top of the sheetpile wall. The cap is connected to the toe of the concrete stairs by bolts extending through the face of the cap and by steel plates that span between the tread of the lower step and the top of the concrete cap. Most of the bolt holes extending through the face of the pile cap are missing bolts. These open holes provide a conduit for wave action behind the sheetpile wall. In some areas gaps were observed between individual sheetpiles and between the tops of the sheetpile wall and pile cap. These gaps also provide conduits for wave action that could potentially undermine the toe of the adjacent stairs. In some areas, lateral deflection of the sheetpile wall occurred under hand pressure. This suggests poor embedment of the sheetpiles. The portion of the concrete

stairs behind the sheetpile wall exhibited moderately severe cracking. South of the shoreline concrete stairs is approximately 285 feet of additional rock bulkhead/riprap similar to that present north of the stairs. The condition of the rock bulkhead/riprap in this area is similar to that of the bulkhead/riprap north of the stairs.

2.2.2 Overwater Structures

From north to south, overwater structures at Clark Beach Park include a large pier and a small pier. Both the piers are of similar construction, which consists of wood decking, fascia and stringers supported by timber cap beams and piles. With the exception of one pile, the treated timber piles supporting these piers are in good condition. The superstructure of the large pier is in good condition, with the exception of deterioration of the painted wood rail. The wood decking is weathered but in general not decayed. The small pier to the south has sustained fire damage from arson. One of the main stringers has substantial section loss at the abutment and adjacent decking has been removed.

Detailed descriptions of our observations, recommended mitigation, figures, and photographs showing key features are included in Appendix B.

2.3 Groveland Park

Groveland Park encompasses roughly 3 acres at the west side of Mercer Island between W. Mercer Way and Lake Washington, directly opposite Seward Park to the west.

2.3.1 Shoreline Structures

Shoreline structures present at Groveland Park include approximately 250 feet of concrete bulkhead. Vertical cracks extending completely through the bulkhead are present at several locations. Although no widespread undermining of the bulkhead was observed, several large cracks or holes were observed near its toe (below lake level). In addition, what appear to be weep holes were observed near the toe of the bulkhead at approximately 10 foot intervals along its entire length. The area directly behind the bulkhead consists of a beach. Widespread settlement of the beach sand directly behind the bulkhead was observed. More pronounced areas of localized settlement (potholes) were observed in places along the back of the bulkhead. The locations of these potholes coincided with the locations of the larger cracks and voids in the bulkhead. The settlement behind the bulkhead is interpreted to be the result of washout of sediment from behind the wall by wave action. The beach behind the bulkhead appears to be constructed of imported sand. The sand exhibits rilling. This appears to be the result of erosion by runoff from the adjoining upslope area. North of the bulkhead, at the north end of the park, is a small pocket beach. Logs placed at the head of the beach provide grade separation between the beach and the adjacent, higher-lying lawn. The logs have been undermined by wave action and appear at risk of rolling. As this would result in collapse of the edge of the lawn and presents a potential hazard. Anchoring of the logs is recommended.

2.3.2 Overwater Structures

From north to south, overwater structures at Groveland Park include a small pier and a large pier. Typical construction at the large pier consists of precast concrete slab sections supported by treated timber stringers on timber piles; the small pier consists of wood decking

on a similar substructure. Timber piles supporting both structures appear to be untreated and are in poor condition. Advanced decay was documented at the waterline at a good portion of the piles; some have lost bearing at the superstructure interface. Some piles at the large pier have been “canned” (a concrete-infilled steel splice at the waterline). The wood railing and skirt wall / wave break at the large pier is weathered with isolated decay. The relatively thin precast slab elements forming the large pier deck are weathered, have substantial paste erosion, and are cracked; the screws connecting the slabs to the underlying substructure have compromised holding capacity and are loose at some locations. The south return of the large pier is topped with asphalt (unknown substrate). At the north end of the pier, the slabs/stringers are noticeably sagging; this end sways noticeably in the east-west direction. Underwater wood bracing elements at the large pier are loose and some dowel type connectors (bolts / threaded rods) were observed to be substantially corroded. The wood decking at the smaller pier is weathered and decayed in some areas. Various planks have been replaced in the past.

Detailed descriptions of our observations, recommended mitigation, figures, and photographs showing key features are included in Appendix C.

3 PRIORITIZED REMEDIATION

3.1 Short Term Remediation (1 – 2 years)

The decayed piles supporting the two piers at Groveland Park result in diminished load carrying capacity of the structures. These piers should be repaired or replaced in the short-term.

If the area bounded by the sheet pile wave break at Clarke Beach Park is desired to remain in use as a swim area for children, additional work is recommended to improve safety, including covering of any exposed sheet piling edges and limiting swimmer access to fish windows.

3.2 Mid-Range Remediation (3 – 5 years)

The two piers at Luther Burbank Park should be repaired relatively soon (recommended before 2017), and reserves for long-term maintenance should be budgeted for. If they are to be used in the future, the mooring piles at Luther Burbank Park should be spliced at the waterline. In addition to these items, the log bulkhead at Groveland’s pocket beach should be re-anchored.

3.2 Long-Term Remediation (10 + years)

In general, the remaining work contemplated in the summary tables in the appendices should be addressed in the next 10 – 15 years. However, in some cases (such as with the concrete bulkhead at Groveland Park), detrimental effects of continued undermining are expected to increase over time if left unmitigated.

Limitations of Report

This report is based on limited visual observations at specific shoreline and overwater structures at Luther Burbank, Clarke Beach, and Groveland Parks on Mercer Island. The report is for the sole use of the City of Mercer Island. Review and commentary on structures not addressed herein is beyond the scope of this study.

Appendix A

Luther Burbank Park

Summary Tables

A.1 – Shoreline Structures

A.2 – Overwater Structures

Figures

A1 – Park Map

A2 – Large Pier, Plan and Section

A3 – Large Pier, Sections

A4 – Small Pier, Plan and Sections

Representative Photos

1A – 26A

Table A.1: Luther Burbank Park - Shoreline Structures

DRAFT 5/30/14

	OBSERVATION			RATING					MITIGATION			
				Rating for Structure (1-10 = poor-good)				Unmitigated	Interim Mitigation		Long-Term Mitigation	
Loc	Shoreline Structure	Condition	Cause	Condition	Function	Aesthetic	Safety	Life Expect. (years)	Options	Est. Costs	Options	Est. Costs
1	**Concrete Bulkhead** [approx 200 ft of shoreline]	Generally good; minor undermining of toe observed where a drain pipe extends out into lake from under the bulkhead (near the center of the bulkhead); minimal sedimentation observed at base of joints in bulkhead.	Minor washout of sediment around drain pipe by wave action.	10	10	10	10	20+	None recommended at this time.	N/A	None recommended at this time.	N/A
1A	**Brick work** [behind bulkhead]	Some uneven, chipped, or missing bricks behind bulk-head, mainly near S. end	Likely due to settle-ment of fill behind bulkhead; chipped or missing bricks likely due to wear/vandalism.	9	9	7	9	Exceeded where damaged	None recommended at this time.	N/A	Removal and replacement of existing bricks.	$2,000 - $4,000
1B	**Gravel maintenance road/trail**	Heavily rilled; erosion of soil from inclined road has resulted in deposition of mud and accumulation of standing water on brick surface behind S. end of bulkhead.	Uncontrolled runoff on inclined surface of maintenance road; a portion of the runoff appears to be due to emergent seepage (springs) in the road.	4	4	2	7	Exceeded	Periodic regrading of the road and frequent removal of the mud from behind the bulk-head.	$1,000 per event	Construction of check dams/water bars on road; installation of a trench drain at the toe of the slope.	$10,000 - $15,000
2	**Natural shoreline** [approx 975 ft. of shoreline]	Generally good; trail paralleling shoreline very muddy.	Muddy condition of trail due to accumula-tion of runoff, possibly with some emergent seepage.	7	7	7	9	20+	Build up surface of trail with cedar chips underlain by filter fabric.	$5,000 - $10,000	Build up surface of trail with crushed rock underlain by filter fabric.	$10,000 - $15,000
3	**Swim beach** [approx 85 ft. of shoreline]	Beach appears to be constructed of imported sand placed on till. Heavy rilling of surface of beach. Concrete steps/retaining walls at head of beach in good condition.	Rilling on beach due to erosion from runoff. The source of much of the runoff appears to be emergent seepage (springs).	6	6	6	10	N/A	Regrade surface of beach/import additional sand.	$5,000	Installation of interceptor/finger drains to control seepage.	$10,000 - $15,000

Table A.2: Luther Burbank Park - Overwater Structures

DRAFT 5/30/14

	OBSERVATION			RATING					MITIGATION			
				Rating for Structure (1-10 = poor-good)				Unmitigated	Short-Term Mitigation		Long-Term Mitigation	
Loc	Overwater Structure	Condition	Cause	Condition	Function	Aesthetic	Safety	Life Expect. (years)	Options	Est. Costs	Options	Est. Costs
4	**Large Pier Superstructure**	Superstructure consists of precast conc decking units and wood bull rails at main pier; diagonal wood decking at fingers; newer steel gangway and marine grating at floating swim platform. Concrete slabs exhibit minor cracking / spalling but are otherwise in relatively good condition. Wood decking / rails weathered but with exception of some detached bull rail, these are in relatively good condition.	age weathering	7	7	7	8	15+	Allowance for repair of deteriorated concrete and wood rails.	$15,000 - $20,000	Provide allowance in budget for additional similar mitigation procedures in 10 - 15 years.	$20,000
	Large Pier Substructure	Substructure consists of treated timber cap beams (with non-treated wood shims); creosote treated timber piles and timber bracing. Diver reports the following: With exception of one location, piles are in good condition. Problems exist with decayed wood shims between caps and piles, and decayed cap ends. Bracing is loose and connection hardware loose corroded at some locations.	age weathering wood decay steel corrosion wave action	5	5	N/A	7	2 - 4	Pile splice allowance + allowance to repair decayed cap beams, shims and bracing in-place.	$65,000 - $85,000	Provide allowance in budget for additional similar mitigation procedures in 10 - 15 years.	$50,000
5	**Small Pier Superstructure**	Construction and condition same as large pier - see notes above							Allowance for repair of deteriorated concrete and wood rails.	5,000 - $10,000	Provide allowance in budget for additional similar mitigation procedures in 10 - 15 years.	$10,000
	Small Pier Substructure	Construction and condition same as large pier - see notes above							Allowance for repair of deteriorated concrete and wood rails.	$20,000 - $25,000	Provide allowance in budget for additional similar mitigation procedures in 10 - 15 years.	$20,000
6	**Mooring Piles**	Timber mooring piles south of small dock are deteriorated	age wood decay	3	3	3	7	Exceeded	Splice timber piles	$12,000 - $16,000	None recommended at this time.	N/A

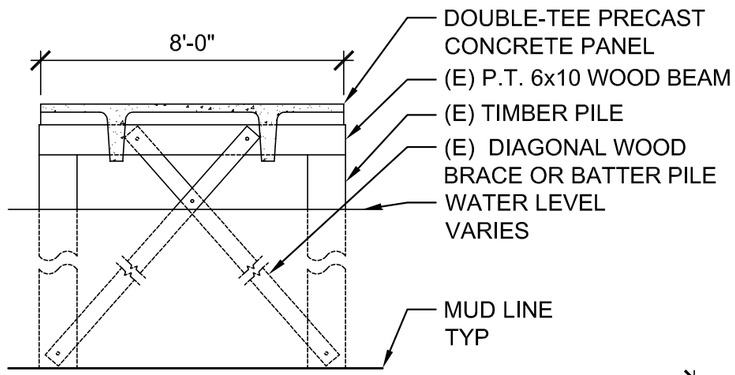
NOTE: BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

REFERENCE: GIS - KING CO. / USGS

SITE PLAN - LUTHER BURBANK PARK
MERCER ISLAND PARKS - WATERFRONT STRUCTURES ASSESSMENT
MERCER ISLAND, WASHINGTON

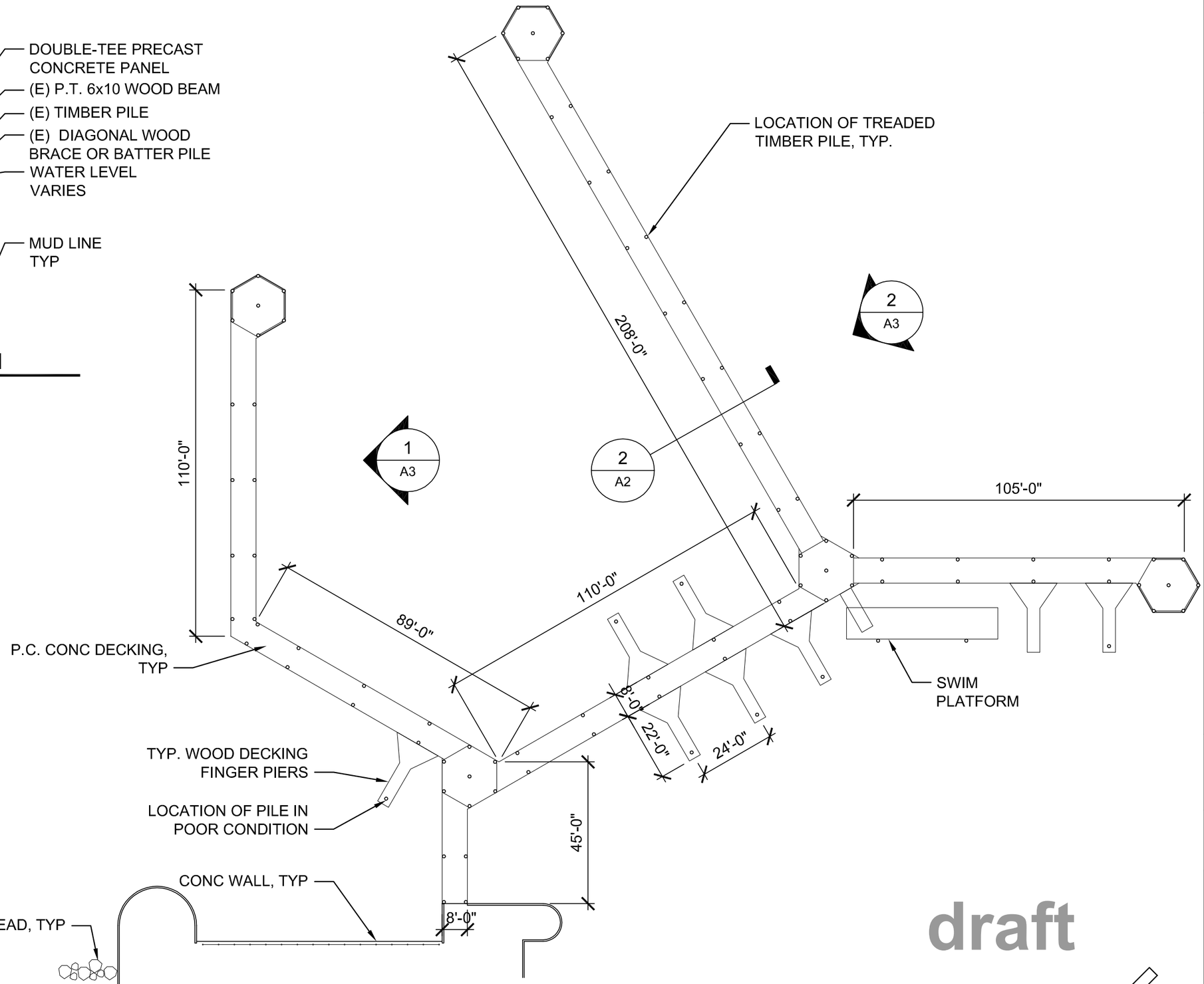
FIGURE A1
DATE 4/1
PROJ. NO. KE140078A

140078 Mercer Island Parks \ 140078 Plan Luther Burbank.cdr



2 TYPICAL PIER SECTION

SCALE: 1/4" = 1'-0"



1 PIER PLAN

SCALE: approx. 1/32" = 1'-0"

FIGURE A2

LARGE PIER - PLAN
LUTHER BURBANK PARK

CITY OF MERCER ISLAND

SCALE : NTS

DATE	4/2014
DRAWN	PK / MD
CHECK	LD
JOB	2014001

OAC
701 Dexter Avenue North
Suite 301
Seattle, WA 98109-4342
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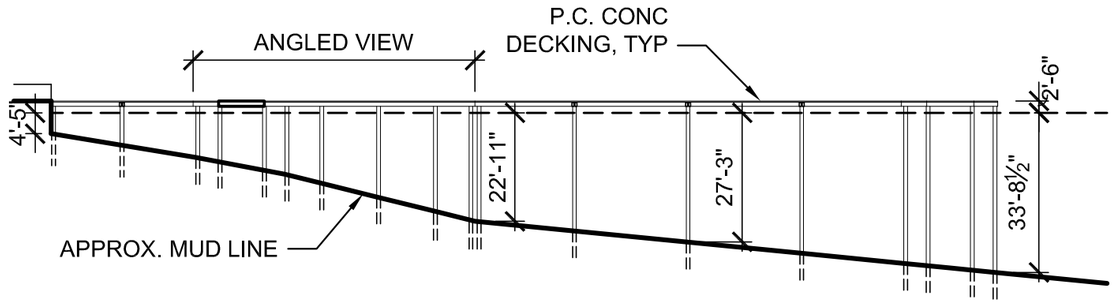
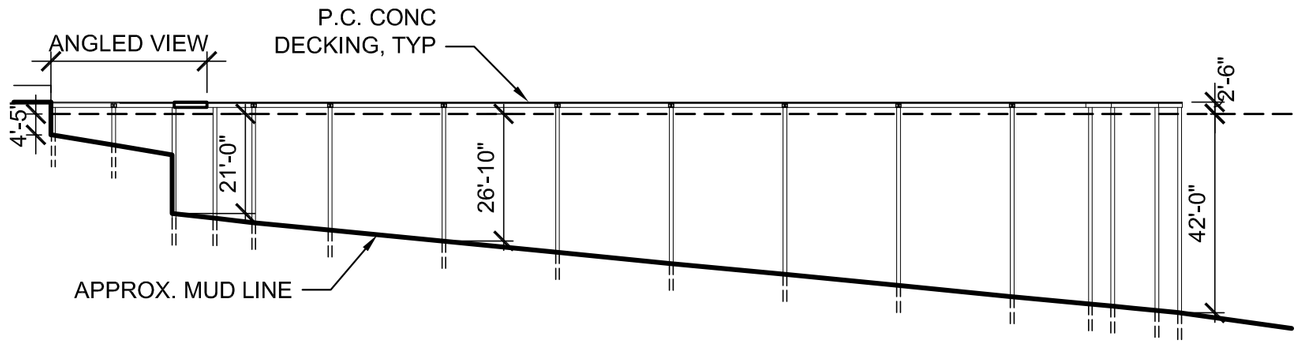


1 PIER SECTION

SCALE: approx. 1/32" = 1'-0"



draft

2 PIER SECTION

SCALE: approx. 1/32" = 1'-0"

FIGURE A3

LARGE PIER - SECTION
LUTHER BURBANK PARK

CITY OF MERCER ISLAND

SCALE : NTS

DATE	4/2014
DRAWN	PK
CHECK	LD
JOB	2014001

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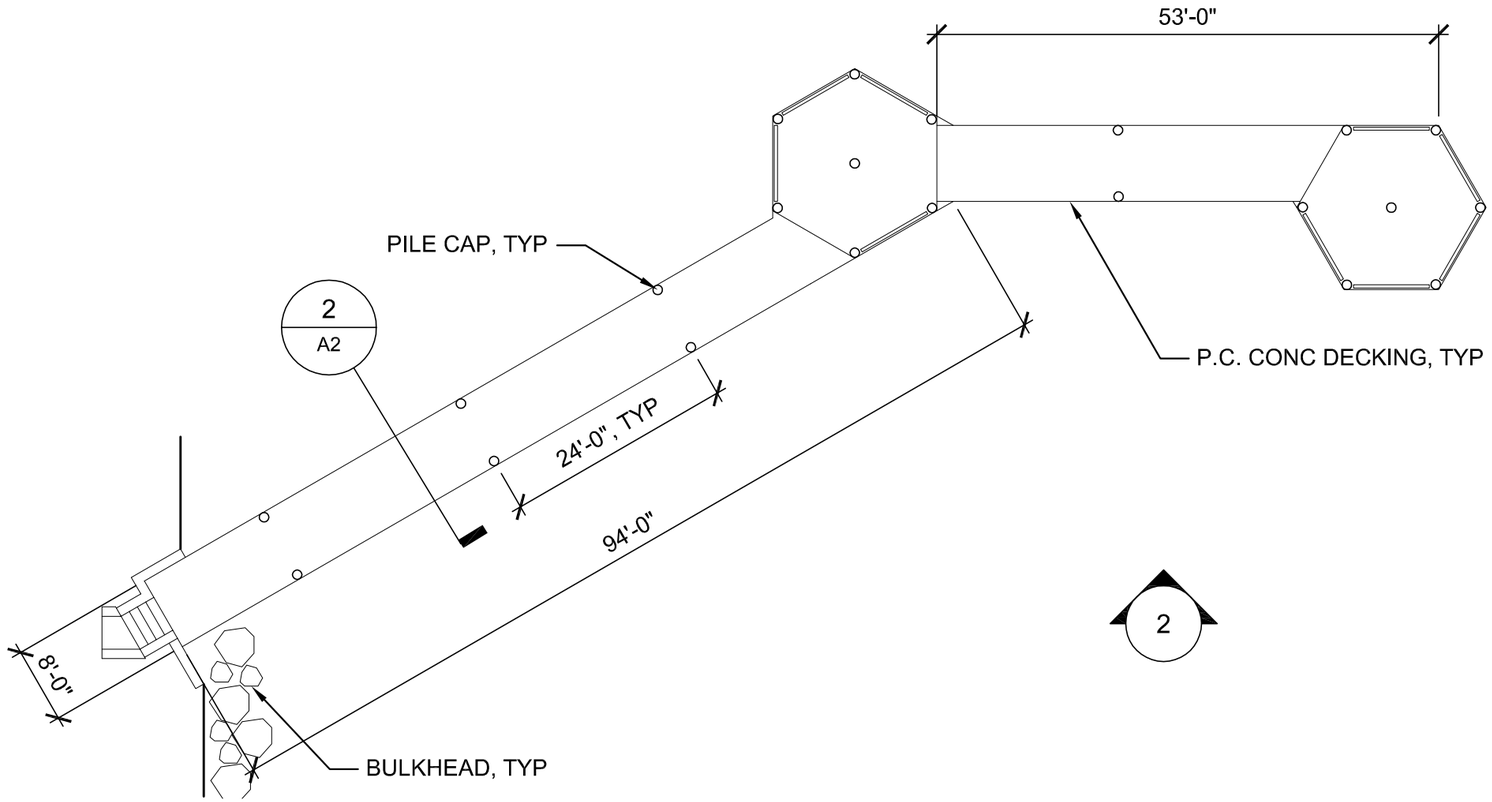
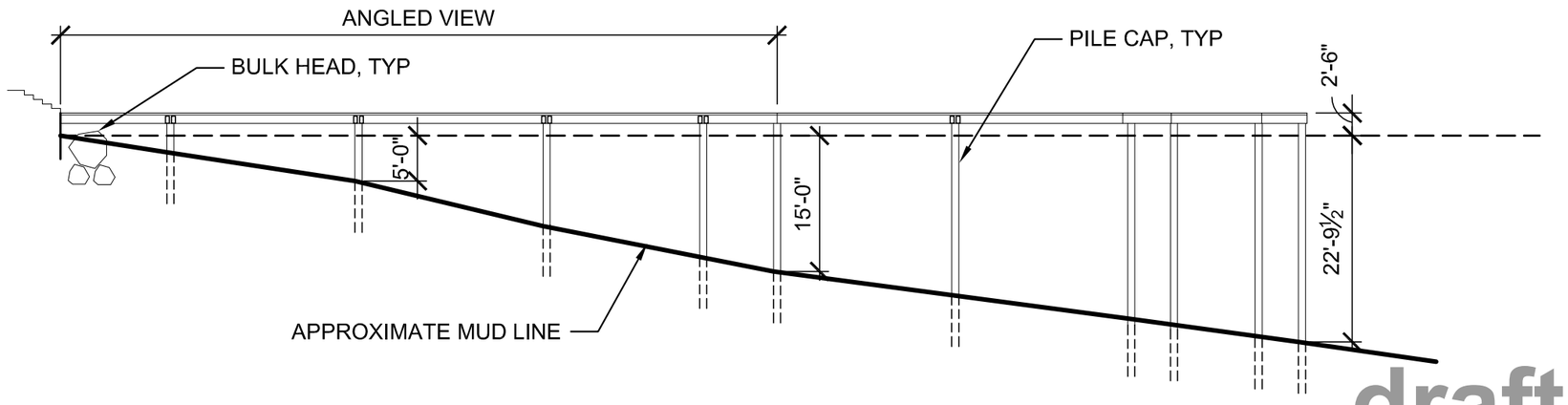


1 PIER PLAN

SCALE: approx. 1/16" = 1'-0"



2 PIER SECTION

SCALE: approx. 1/16" = 1'-0"

N

FIGURE A4

Item 3.

SMALL PIER - PLAN AND SECTION
LUTHER BURBANK PARK

CITY OF MERCER ISLAND

SCALE : NTS

DATE	4/2014		
DRAWN	PK		
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Luther Burbank Park – Representative Photos

Photo **1A** – Concrete bulkhead

Photo **2A** – Brickwork adjacent to bulkhead

Photo **3A** – Gravel maintenance road

Photo **4A** – Trail along shoreline

Photo **5A** – Swim beach

Photo **6A** – Large pier

Photo **7A** – Pier finger and gangway

Photo **8A** – Typical pier construction

Photo **9A** – Deteriorated pier slab

Photo **10A** – Pier slab over support

Photo **11A** – Moss / vegetation at pier edge

Photo **12A** – Deteriorated / loose bull rail

Photo **13A** – Treated cap beam at pile

Photo **14A** – Deteriorated cap beam

Photo **15A** – Deteriorated cap beam end

Photo **16A** – Spalling at underside of precast “T”

Photo **17A** – Precast “T” and timber cap beam

Photo **18A** – Plywood shims between cap and pile

Photo **19A** – Diagonal bracing

Photo **20A** – Loose connector at substructure

Photo **21A** – Stripped / corroded connector

Photo **22A** – Small pier

Photo **23A** – Platform at end of small pier

Photo **24A** – Pile cap to pile connection (small pier)

Luther Burbank Park – Representative Photos

Photo **25A** – Deteriorated cap beam (small pier)

Photo **26A** – Deteriorated mooring pile

Luther Burbank Dock Repair and Reconfiguration
Demand and Allocation Analysis
January 2, 2019

INTRODUCTION

The City of Mercer Island's Parks and Recreation Department's (MIPR) Luther Burbank Park is located on the northeast shore of Mercer Island in Lake Washington. The park provides valuable recreational opportunities including access to Lake Washington for residents and visitors. The 2006 Master Plan for Luther Burbank Park recommended a variety of improvements to the park including preserving use of the dock facility to support recreational boating, fishing, and other activities. MIPR is undertaking a planning and grant process to revitalize the dock facility to provide continued stewardship of the park's facilities.

As part of the planning process to determine a preferred rehabilitation scheme for the dock facility, MIPR has requested that Reid Middleton provide a general analysis of potential types of uses and recommended allocations of uses for the dock facility based on review of existing information and discussion with stakeholders. Due to scoping and funding constraints for the analysis, a detailed market survey and assessment was not conducted. The following provides the general analysis based on a variety of available information including the 2006 master plan, a previous dock condition assessment and repair plan, a user survey, discussions with MIPR staff and the Mercer Island Marine Patrol, discussion with lake cruise operators, and various published data and reports.

EXISTING FACILITY

The MIPR's Luther Burbank Park provides valuable access to Lake Washington for residents and visitors. The docks provide waterfront access and recreational moorage opportunities. The dock complex is located on the east shoreline of the park, adjacent to the site's original boiler building. The current dock layout and construction is optimized for use by large boats. The dock facility is primarily a fixed pier structure with the deck located high above the lake water level. The fixed docks were originally built in 1974 and are in need of repairs. A smaller floating dock section accessed by a gangway has been added to the facility to facilitate launching of hand-carried boats.

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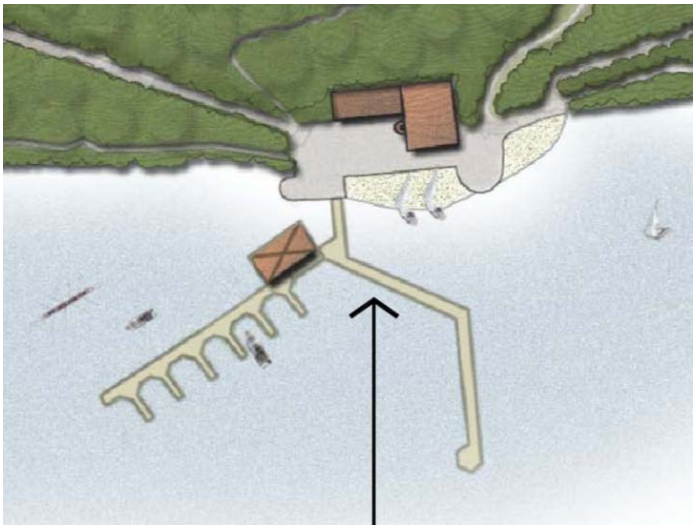
2006 MASTER PLAN

The focus of the master plan for Luther Burbank Park completed in 2006 was that the docks would support boating facilities while maintaining the character of the park and the existing uses of the docks. The intention for the North Dock was to focus on passive use (such as fishing, sunbathing, etc.) but not swimming. The intention for the reconfigured South Dock was to replace the current angled dock with a straightened floating dock with finger piers for small motor craft, "human powered" boats (such as kayaks, canoes, small sailboats), and motorized launch boat storage.



POTENTIAL USE / DEMAND DATA ANALYSIS

There are several potential uses of the docks at Luther Burbank Park that focus on recreation and could be accommodated in the dock reconfiguration. Non-boating specific uses could include sunbathing, fishing, swimming, and family gatherings. Boating specific uses could include small hand-carried watercraft (kayaks, canoes, stand-up paddle boards), small boat day use (both motorized and sail), larger vessel moorage and transient use, and cruise boat use (such as Argosy, Waterways, etc).

Data gathered or reviewed about the Luther Burbank dock reconfiguration included:

- Interview with Parks Staff
- Interview with Marine Patrol
- Parks 2018 Luther Burbank Dock Community Survey Results
- Luther Burbank Park Boiler Building Study (2017)
- Luther Burbank Waterfront Plaza Daily Video Log (2017)
- 2016 Fleet Characteristics Data
- Kirkland Waterfront Demand Assessment (2015)
- Interview with Waterways Cruises
- Interview with Argosy Cruises

A brief description of each item is included below. Note that the review is based on readily available data and that some of the data is regional data and not specific to the project site.

Interview with Parks Staff

The interview was conducted on October 2, 2018, and included MIPR's planning, program, and maintenance staff. The main results of the discussion included:

Docks need to be repaired and/or reconfigured soon as they are deteriorating.

Kayaks and paddle boarders currently use the beach instead of the dock, but ideally want to launch from floats or a flatter sloped beach.

Docks are typically used by small boats (16' to 24' are most common).

Programs include sailing (6-8 boats at a time) and kayak / stand up paddle boarding (10 to 15 participants). There is a greater demand for all programs. Likely could do at least two programs at the same time all summer long.

Docks are used for sunbathing all the time, fishing (especially during early morning), and for swimming – even though it is posted "no swimming".

Main dock usage by boats is small power boats. Typically use floating dock (if they know about it) or the existing slips (don't use larger pier portion). Lots of pick up / drop off, but not much (if any) day use moorage.

Larger vessels (30' to 50') boats only use docks occasionally.

Argosy Cruises docks three times a day during Seafair week.

Interview with Marine Patrol

Sgt. Brian Noel with the Marine Patrol was interviewed on Oct 2, 2018. The main results of the discussion included:

Main concern heard is that existing piers are hard to tie to given their fixed height. Even their 30-foot-long Marine Patrol boats have trouble tying up sometimes. Most boats stop at the floating dock.

Dock has lots of fishing (morning) and sunbathers (all day).

Hand-carried vessels (kayaks, canoe, stand-up paddleboards, etc.) are the fastest growing watersport on Lake Washington.

Marine Patrol has seen a large increase in 16- to 25-foot boats on Lake Washington (mainly ski and wakeboarding boats), but not much of an increase in larger length vessels.

There are more wakeboarding and wake surfing boats, which generate larger wakes (5+ feet), so dock protection and shoreline protection from erosion is becoming more important.

Traffic on the lake is expected to continue to increase.

There is a water taxi service scheduled to start in 2020 in conjunction with new developments in Renton that may run throughout Lake Washington, and Luther Burbank could be a stop.

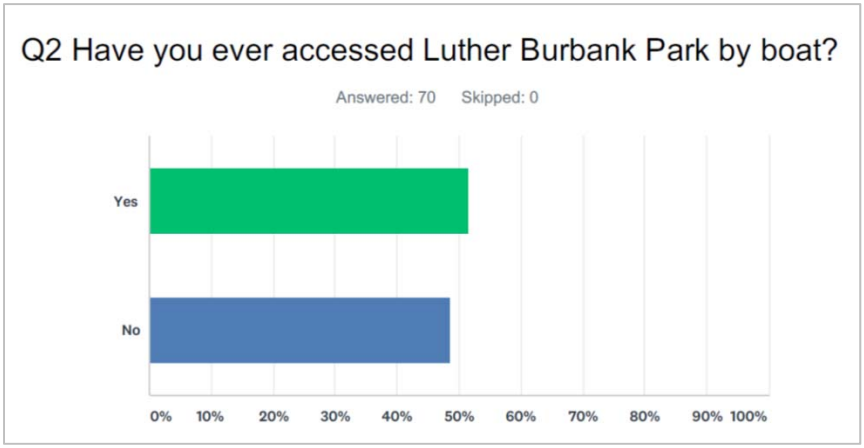
There are swimmers off the dock all the time (in spite of signage). People are going to swim near where they sunbathe but don't want to swim where there is boat traffic.

Cruise vessels (Argosy/Waterways/etc.) may be looking for additional stopping locations.

Parks 2018 Luther Burbank Dock Community Survey Results

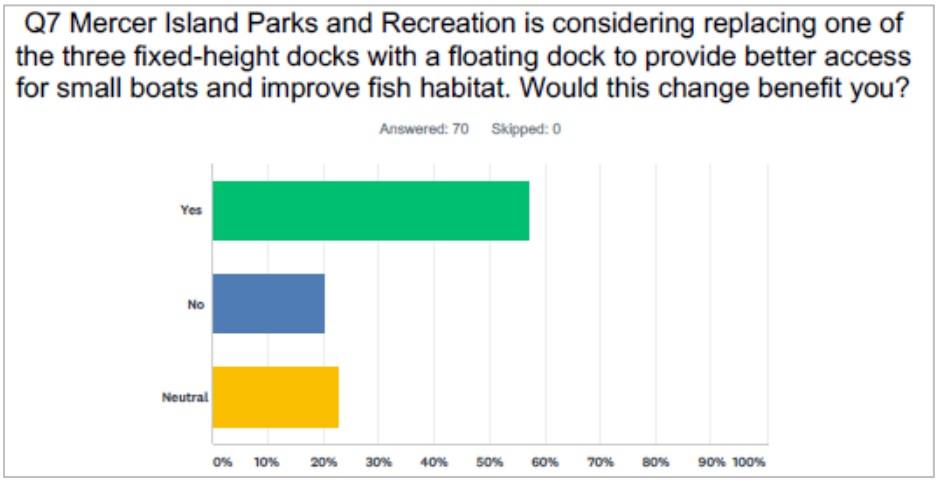
MPIR conducted an online survey this summer to gather data on the dock repair and reconfiguration. Approximately 70 responses were received. The main results include the following:

50% of respondents have accessed Luther Burbank Park by boat.

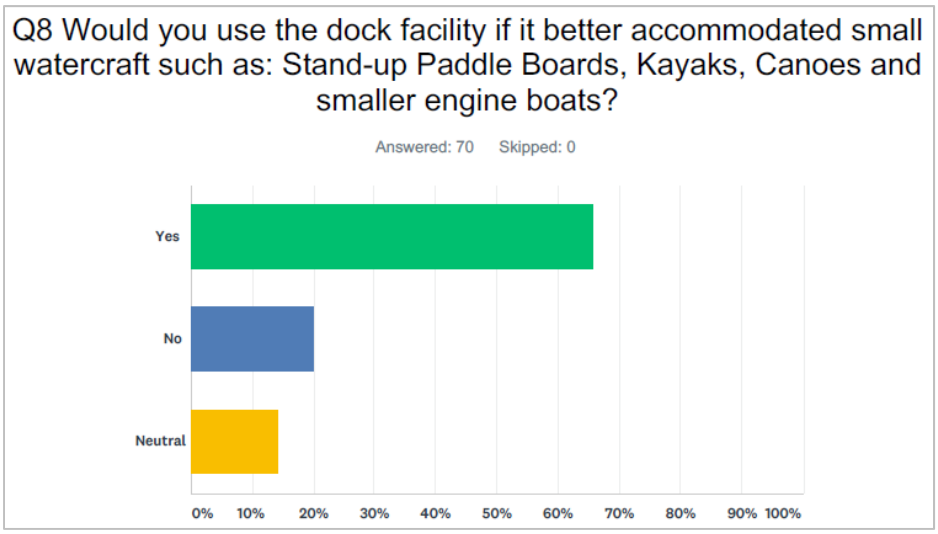


Over 84% (32 of 38) of boaters accessing the docks were in boats 30 feet long or less.

Almost 60% of respondents agreed that more floating docks would benefit them (with only 20% stating "no" and the remaining 20% being neutral).



Over 65% of respondents would use the dock if it were reconfigured for more small watercraft (with only 20% stating “no” and the remaining 15% being neutral).



Approximately 62% (33 of 53) of respondents would like to see one or more of the following items: more small boat moorage, floating docks with lower height, and/or more small watercraft facilities. Other main responses included items such as no action (due to cost), need for nearby food options, enhanced fish habitat, and creation of a swimming area.

Luther Burbank Park Boiler Building Study (2017)

Sail Sand Point and Kayak Academy both run summer programs at the docks.

Sail Sand Point uses the existing floating dock and Kayak Academy uses the rocky beach north of the docks. Neither uses the stationary docks (piers) except to access the floating dock.

Sail Sand Point has expressed interest in modifying the dock area to include more floating docks.

Luther Burbank Waterfront Plaza Daily Video Log (2017)

A daily video of the usage and activity of the docks was recorded for 82 consecutive days during the summer of 2017 (6/15/17 to 9/5/17).

Based on a review of these daily logs, the main results are as follows:

The North dock is used mainly for fishing and sunbathing, and the slip on the north side of the dock is rarely used by boats.

The majority of boat usage is on the floating dock and the adjacent slips.

The majority of boats observed are small boats (ski boats or similar).

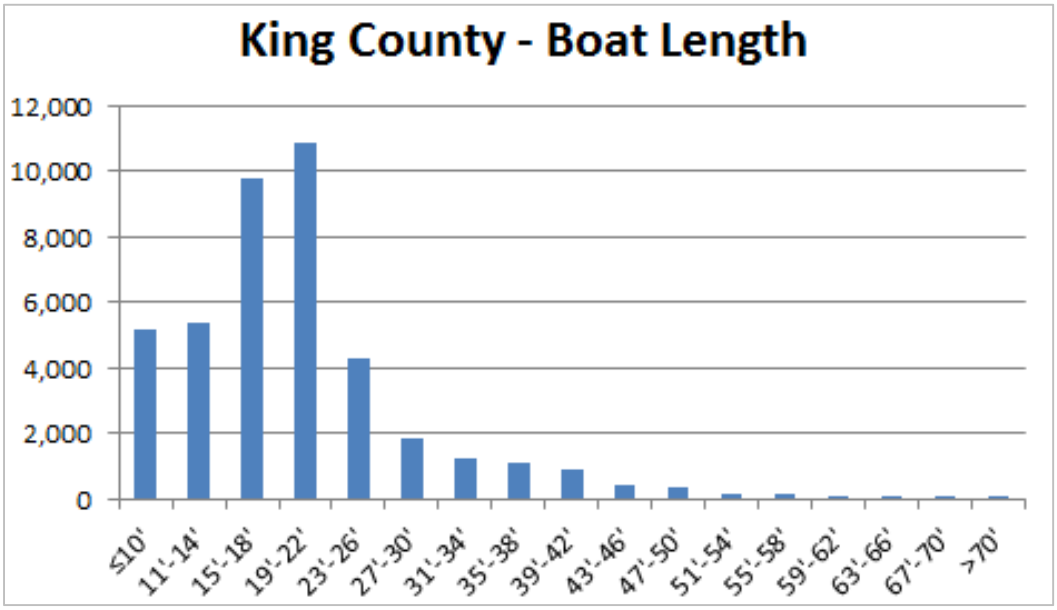
Larger vessels and cruise boats dock occasionally and typically dock at the end of the "middle" pier.

Visitors like to use the larger pier ends for viewing, sunbathing, etc.

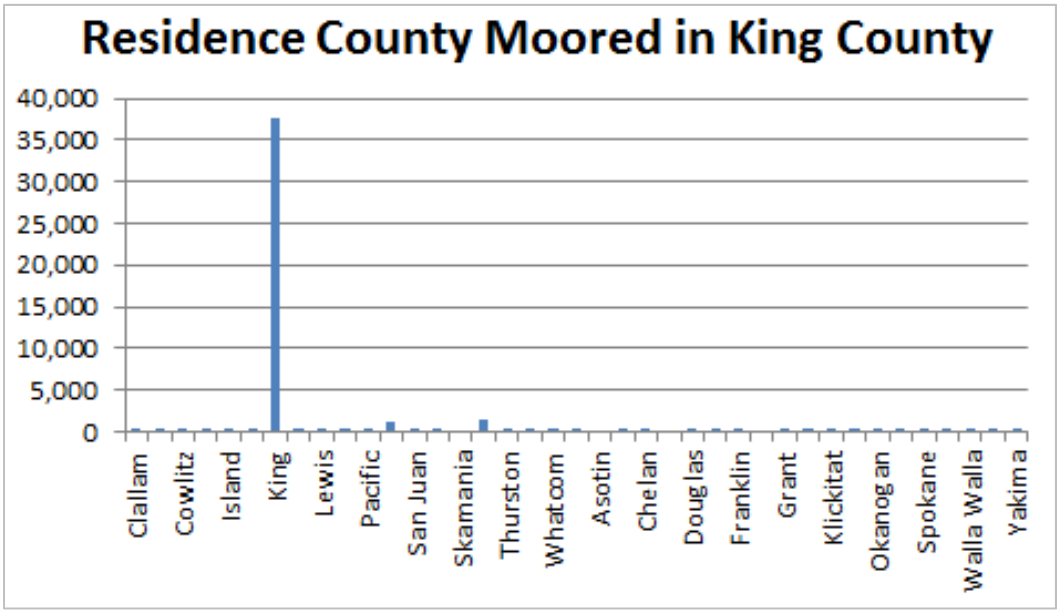
Traffic on the docks and in the slips is much higher on weekends than weekdays.

Fleet Characteristics Data (2016)

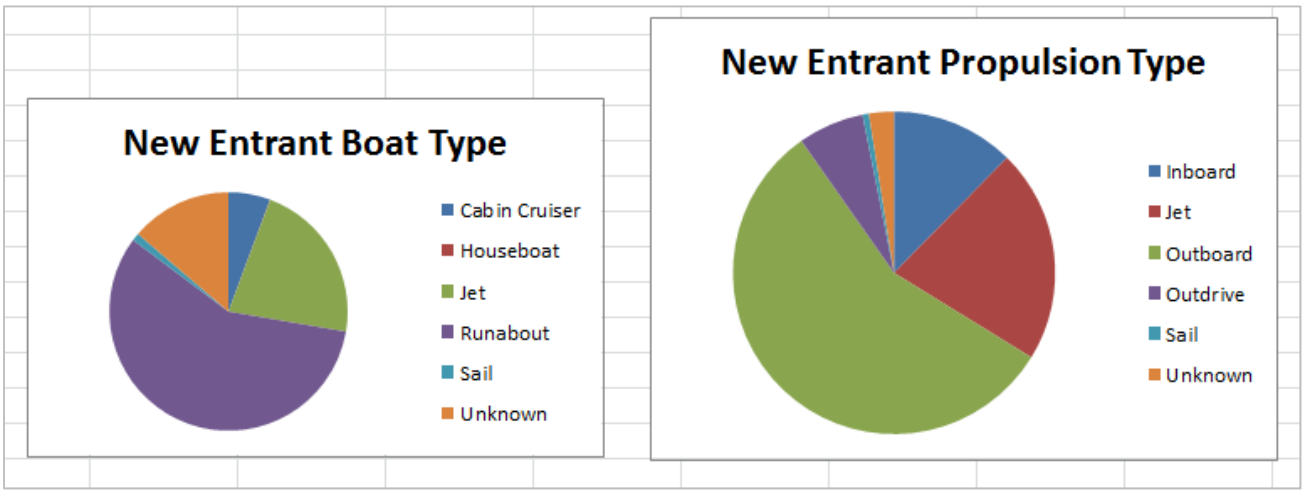
Based on the fleet characteristics data from 2016, the vast majority (89%) of boats in King County are 30 feet or less in length. This indicates that the target slip length for moorage is 30 feet or less.

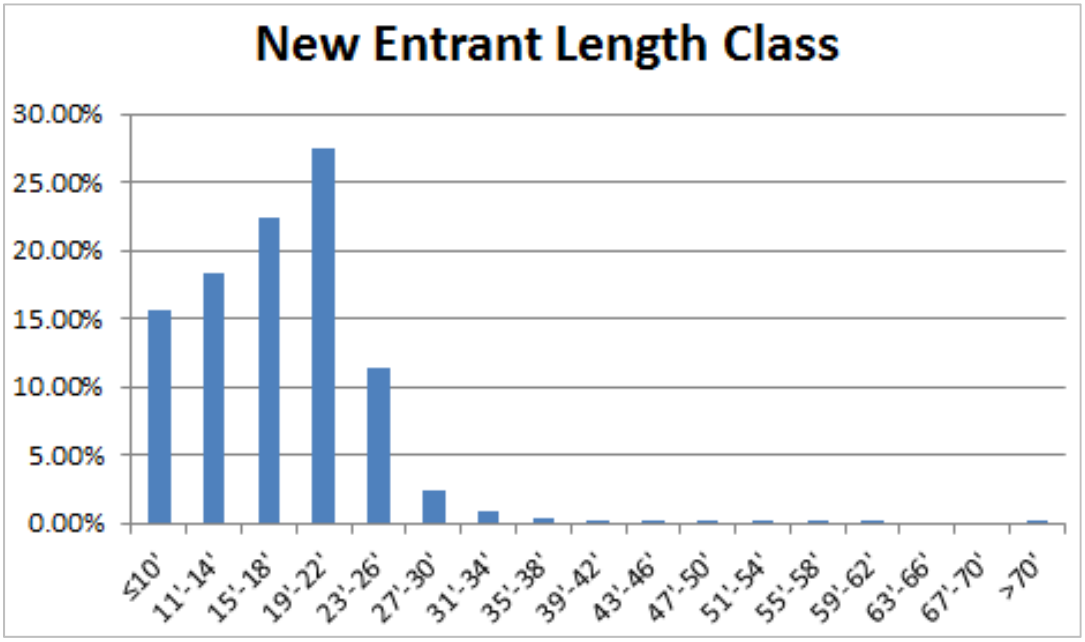


The majority of vessels moored in King County are by residents of King County. This indicates that local moorage and typical use remains within King County.



The majority of new entrants into boating (2016 vs 2015 fleet total) are runabout boats, outboard motors, and less than 30 feet in length.





Kirkland Waterfront Demand Assessment (2015)

A demand assessment for the Kirkland City Pier was prepared by BST Associates in 2015. A few of the findings from the demand assessment that are most relevant to the Luther Burbank dock reconfiguration are shown below:

> Demand for recreational boating is increasing with over 28,000 registered boaters within 10 miles of Lake Washington. There are only 237 public transient moorage spaces in Lake Washington.

Recreational Boat Market

- Boat market improving and recreation demand increasing.
  - 28,000 register boaters within 10 miles of Lake Washington.
  - Of known boat launches there were 33,200 Boat Launches in 2013 excluding annual passes.
    - This does not include Kirkland Boat Launches as Kirkland's payment system did not track boat launches separate from moorage payments.
- There are approximately 5,000 moorage slips and docks in Lake Washington
  - 237 public transient moorages in Lake Washington.
    - Kirkland accounts for 64% of the inventory
  - 2,171 moorage slips in marinas and 162 dry storage slips.
    - Kirkland accounts for 19% of the moorage slips on Lake Washington
  - 2,556 residential parcels with docks.
    - Kirkland accounts for 12% of parcels with residential docks on Lake Washington

Moorage Summary

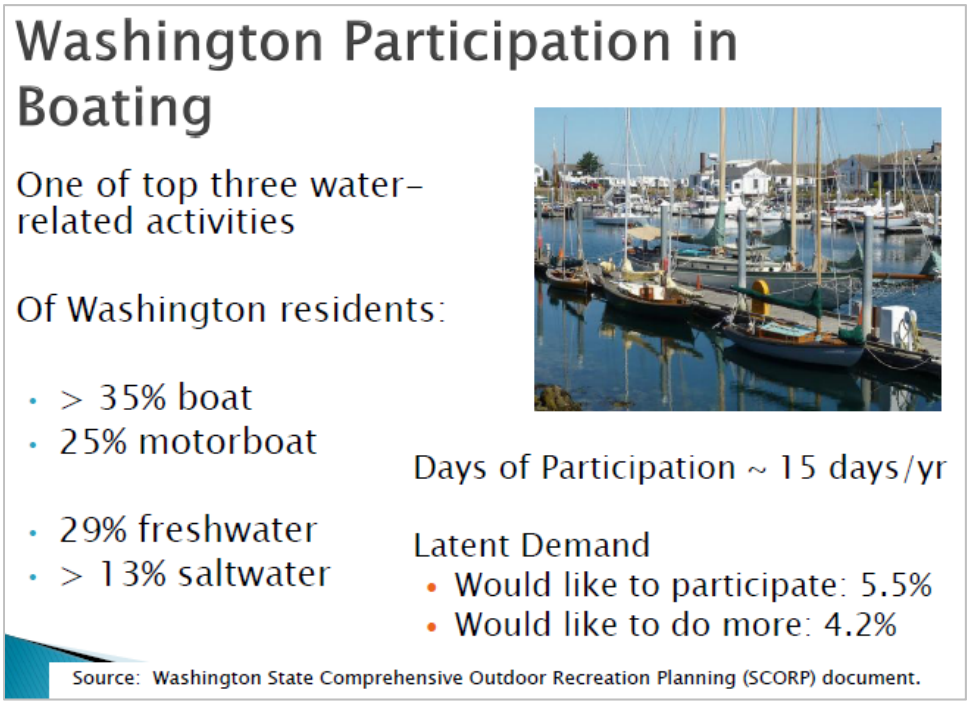
- There are ~ 237 public transient moorages in Lake Washington.
  - Kirkland accounts for 64% of the inventory of transient moorage on Lake Washington
- There are ~2,171 moorage slips in marinas and 162 dry storage slips.
  - Kirkland accounts for 19% of the moorage slips on Lake Washington
- There are ~2,556 residential parcels with docks.
  - Kirkland accounts for 12% of parcels with residential docks on Lake Washington

City	Permanent Moorage Marinas	Dry Storage	Transient Spaces
Beaux Arts	71	-	-
Bellevue	688	-	14
Kenmore	295	162	38
Kirkland	417	-	152
Renton	-	-	12
Seattle	700	-	21
subtotals	2,171	162	237

Area	Est Residential Docks
Bellevue	284
Hunts Point	70
Kenmore	57
Kirkland	301
Lake Forest Park	106
Medina	170
Mercer Island	654
Renton	73
Seattle	677
Yarrow Point	49
King County	115
Total est	2,556

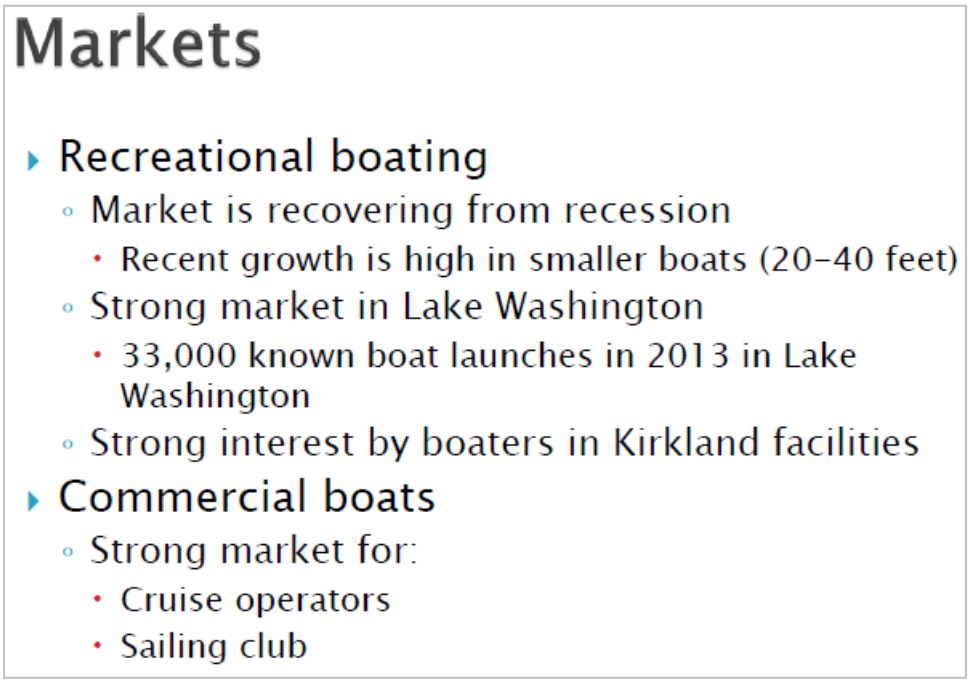
(Source: Kirkland Waterfront Demand Assessment, Jan 5, 2015, BST Associates)

Boating is one of the top three water-related activities in Washington with about 35% of residents boating and approximately 10% wanting to participate or boat more.



(Source: Kirkland Waterfront Demand Assessment, Jan 5, 2015, BST Associates)

Recreational boating is growing, especially with small boats in Lake Washington. There is also a strong demand for cruise boats.



(Source: Kirkland Waterfront Demand Assessment, Jan 5, 2015, BST Associates)

The number of cruise vessels in the Puget Sound area continues to increase. Below is a list of general information on passenger ferry and passenger tour vessels in the Puget Sound and Seattle Area. Waterways Cruises also has four vessels that are not currently included in the table. Average vessel length range is 60 to 90 feet.

Service/ Route	Operator	West Terminal	East Terminal	Boat Type/Name	Length (ft)	Beam (ft)	Weight (tn)	Passgr. Capacity	Draft/ Draw (ft)
Kitsap Foot Ferry	Kitsap Transit	Port Orchard	Bremerton	Carlisle II	60	24	95	143	5.7
		Bremerton	Annapolis	MV Admiral Pete	65	18		122	
Kitsap Fast Ferry	Kitsap Transit	Bremerton	Seattle	Rich Passage 1	78.3	28.2		118	3
Vashon Water Taxi	King County Water Taxi	Vashon	Seattle	MV Sally Fox	104	32.9		278	3.6
West Seattle Water Taxi	King County	West Seattle	Seattle	MV Doc Maynard	104	32.9		278	3.6
Victoria Clipper	Victoria Clipper	Victoria	Seattle	Victoria Clipper IV	130	30	478	330	13
				Victoria Clipper III	88.5	28.5	235	254	3.5
San Juan Clipper	Victoria Clipper	San Juan Islands	Seattle	San Juan Clipper	85.3	32.8	235	237	4.9
Tour Vessel	Argosy	Seattle	Blake Island	Salish Explorer	92	36		420	
Tour Vessel	Argosy	Seattle	Seattle	Spirit of Seattle	115	33	59	499	7
Tour Vessel	Argosy	Seattle	Seattle	Lady Mary	98	26	44	300	9
Tour Vessel	Argosy	Seattle	Seattle	Celebrations	70	18	27	128	4
Tour Vessel	Argosy	Seattle	Seattle	Champagne Lady	70	18	34	149	4
Tour Vessel	Argosy	Seattle	Seattle	Goodtime II	85	28	67	431	6
Tour Vessel	Argosy	Seattle	Seattle	Goodtime III	85	26	66	340	9.7
Tour Vessel	Argosy	Seattle	Seattle	Sightseer	70	25	44	250	9
Tour Vessel	Argosy	Seattle	Seattle	Beaver	31.5	12	9	25	4.6
Tour Vessel	Argosy	Seattle	Seattle	Queens Launch	36	16	16	62	3.5
Tour Vessel	Argosy	Seattle	Seattle	Royal Argosy	180	42	91	800	8.6

(This information was expanded from initial data provided by Nelson\Nygaard Consulting Associates, Inc. to Seneca to add additional Argosy Vessels and beam information)

Phone Interview with Waterways Cruises

Hilton Smith, the founder of Waterways Cruises, was interviewed on Oct 12, 2018. The main results of the discussion included:

Waterways has in the past and currently does stop at Luther Burbank docks. Stops have only been for private cruises (not public) so far and depends on demand.

Waterways cruises are mainly seasonal: May through September.

Waterways currently has a third boat they'd like to run out of somewhere for Seafair, football games, etc., and Mercer Island is viewed as a good central location.

Preference is strong for floating docks instead of fixed piers like existing condition. Low lake water levels and fixed pier heights create all sorts of issues for cruise boats.

Waterways does about 700 cruises per year on Lake Washington (using 3 to 4 vessels).

Waterways would love for Luther Burbank to be a "touch-and-go" location (passenger pickup and drop-off).

Docks would need to be ADA accessible with seating or assembly space for 30 to 150 people (covered preferred) and include lighting (for evening and/or night cruises) and a bus turn-around if possible. Docks would not need power or water.

Waterways is currently paying approximately $200 to "touch-and-go" at other locations and could likely do up to 50 stops per year at Mercer Island.

"We would love to see it in better condition than it is, and would love to use it more than we do." – Hilton Smith, Founder of Waterways Cruises

Interview with Argosy Cruises

Argosy Cruises was contacted on October 12, 2018. Chris House (Director of Vessel Operations) provided input regarding dock reconfiguration at Luther Burbank Park. The questions and responses are included below:

Would Argosy have any interest in stopping at the Luther Burbank Park docks? During Seafair and/or other times throughout the year? If so, could you provide an estimate of how many times moorage would be desirable (#/month perhaps)? Also, are there specific ships that would be more likely to stop at this location (we have your fleet list from last year)?

- Yes we stop at Luther Burbank a couple times a year. I'm thinking specifically of the Mercer Island tours we do annually on board the Champagne Lady. Guesstimate of how often additionally we might stop if the facility had an upgrade would be 1 – 2 x per month May – September. Likely vessels = Champagne Lady, Lady Mary, Celebrations, and the Sightseer

The docks are currently fixed piers. Is there a preference for Argosy whether the docks are fixed piers or floating docks?

- Fixed piers. Fixed piers make for a more stable & safe dock when some knucklehead goes zipping past and wakes out the dock.

Are there amenities that Argosy would require in order to be a stopping location. Docks and/or floats will be ADA accessible, but are there other amenities (power, lighting, water, seating, assembly space, etc) that are either needed or desired?

- Needs: lighting; assembly space (under cover would be great); a better lit path from the parking to the dock, (last time I was there I felt it was not lit well, but that might have been since improved); sturdy and commercial sized cleats; power

pylons (if they exist) to be set back from dock edge at least 2' (to clarify, electrical stanchions and/or hose bibs that are set close to dock edges are particularly susceptible to being broken off by larger commercial boats—setting them on the opposite side of the dock from where the moorage occurs, or protecting them with pilings alleviates the possibility of damage to them); load zone close to dock and accessible by small van for caterers/vendors; 9' minimum depth of water at dock edge; clearly labeled "commercial zone" area on the docks for commercial boats, or some other way of clearly communicating "no parking" during times ourselves or other commercial operators have cruises departing from there

- Nice to haves: water; power; sewage pump out (now I'm just dreaming)

CONCLUSION

Personal watercraft (kayaks, canoes, stand-up paddleboards, etc.) and small boat (motorized and sail, less than 30') use is increasing and will continue to grow.

Sailing and kayaking programs could double from current size and continue to grow due to strong demand.

Cruise operators are interested in Mercer Island and would like to make Luther Burbank docks a stop if facilities are improved.

Most users would prefer lower, floating docks.

PRELIMINARY RECOMMENDATIONS

The following provides preliminary recommendations for use and allocation of uses at the dock facility. These recommendations will be finalized based on further discussion with MIPR staff following review of this draft report.

Dock use should be split into two separate areas. One area would be allocated for non-boating activities such as fishing, sunbathing, and potentially swimming, and the other area would be for boating activities such as hand-carried boats, sailing, motorized small boat moorage, and larger vessel and cruise boat moorage.

The existing North pier could be repaired or replaced for non-boating activities. Due to the high cost of dock facilities and the difficulty permitting new overwater coverage, it is not recommended that expanded dock area be constructed for non-boating activities.

A new dock configuration should provide separation as much as feasible between the motorized and non-motorized boating activities.

The existing Middle and South piers should be removed and reconfigured for small boat and cruise operations with new floating docks. The new floats could incorporate a breakwater float for the outer dock to provide better protection for the moorage areas and the shoreline from waves and wakes and smaller floating docks behind the breakwater float for moorage.

Piers and floats need to be ADA accessible and stable for multiple types of uses.

The recommended minimum width for a new breakwater float is 12 feet. The actual required width and configuration of a new floating breakwater should be determined based on a detailed coastal engineering design.

The recommended minimum width for other floats and piers is 8 feet, though wider floats may be needed for hand-launch and other small boat activities.

Slips for small boat moorage should focus on boat lengths of 30 feet or less (the length with the most demand and potential future growth). With only a little over 200 transient moorage spaces available on Lake Washington, there is a large demand for additional transient moorage.

Slips are recommended to be split fairly evenly between 25- and 30-foot slips.

The existing docks have approximately 16 moorage spaces (finger piers and floating dock) and the larger piers are not used significantly. It is recommend a reconfiguration include at least 16 to 20 moorage spaces and potential phasing for an additional 16 or more moorage spaces to be added in the future.

The existing non-motorized float used for classes is approximately 60 lineal feet of useable area (50’ along the west side and perhaps 10’ along the south side). A float that provides useable area along both sides of its length and the end of the float would maximize capability. It is recommended that 200 lineal feet of non-motorized moorage be provided. For reference, below is a table with some of the main non-motorized locations on Lake Washington.

Facility Name	Lineal Feet of Moorage	Notes
Agua Verde	200'	Kayak rental facility float.
Sail Sand Point	315'	Length includes 200' of floating dock and 115' of the adjacent boat ramp float.
Renton Sailing Center	175'	Sailboat storage and launch floats.
Leschi Marina Dinghy Floats	860'	3 separate dinghy float laterals.

A new floating breakwater could be designed to provide flexible side-tie moorage, including provisions for touch and go moorage of the larger cruise vessels that utilize the lake on the outer side of the floating breakwater.

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Luther Burbank Dock Reconfiguration Alternatives
Cost Summary
1/2/2019

	Alternative 1 (Motorized)	Alternative 1 (Non-Motorized)
Mob/Demob	$150,000	$11,000
Environmental Controls	$20,000	$10,000
Pier Repairs	$100,000	$0
Remove & Dispose Existing Pier Superstructure and Piles	$61,845	$0
Furnish & Install New Galv. Steel Pile for Float	$176,000	$32,000
Furnish & Install Moorage Floats	$40,000	$40,000
Furnish & Install Breakwater Floats	$831,000	$0
Furnish & Install Gangway	$97,500	$32,500
Furnish & Install Water & Fire Protect. (Motor. boat portion for both floats)	$176,000	$0
Furnish & Install Boat Sewage Pumpout, Sewer Piping, Elect. Supply	$100,000	$0
Sub-Total	$1,752,345	$125,500
Sales Tax (Excluding Mobilization)	$150,234	$11,450
Total Construction Costs	$1,902,579	$136,950
Planning Contingency (20%)	$350,469	$25,100
Design Contingency (20%)	$350,469	$25,100
Permitting and Engineering (20%)	$350,469	$25,100
Construction Contingency (20%)	$350,469	$25,100
Total Project Costs	**$3,310,000**	**$240,000**

Notes:

Permitting does not include any potential agency required mitigation costs.
Costs are planning level in 2018 dollars and do not include any escalations.
Assume piles every 15' on main walkway floats.
Assume only utilities required are water, fire protection, and electrical and sewer service for pumpout.
Assume breakwater is adequate at 12' wide.
Assume no DNR lease fees.

UNIT PRICES

Description	Units	Unit Price
Mob/Demob	LS	-
Environmental Controls	LS	$30,000
Pier Repairs	LS	$100,000
Remove & Dispose Existing Pier Superstructure and Piles	SF	$15
Furnish & Install New Galv. Steel Pile for Float	EA	$8,000
Furnish & Install Moorage Floats	SF	$100
Furnish & Install Breakwater Floats	SF	$250
Furnish & Install Gangway	LS	$65,000
Furnish & Install Water & Fire Protect. (Motor. boat portion for both floats)	LF	$200
Furnish & Install Boat Sewage Pumpout, Sewer Piping, Elect. Supply	LS	$100,000

CONTINGENCY ITEMS		
Planning Contingency	Percentage	20%
Design Contingency	Percentage	20%
Permitting and Engineering	Percentage	20%
Construction Contingency (as % of pre-tax project cost)	Percentage	20%

Sales Tax	Percentage	10.0%

Project: **Luther Burbank Dock Reconfiguration Alternatives: Preliminary Opinion of Probable Construction Cost**

Client: Mercer Island Parks and Recreation
Job No.: 24-18-016
Design By: BGM Date: 1/2/2019
Checked by: SMK Date:

File: #N/A

ReidMiddleton
728 - 134th SW, Suite 200
Everett, WA 98204
(425) 741-3800
(425) 741-3900 FAX

Preliminary Opinion of Probable Cost
Alternative 1 Motorized: Partial Pier Removal, Breakwater Float w/ Fingers, 1/2 Moorage Float

Note: This cost estimate is approximate. Actual construction bids may vary significantly from this statement of probable costs due to timing of construction, changed conditions, labor rate changes, or other factors beyond the control of the estimators.

Description	Units	Unit Price	Quantity	Total
Mob/Demob	LS	$150,000	1	$150,000
Environmental Controls	LS	$30,000	0.67	$20,000
Pier Repairs	LS	$100,000	1	$100,000
Remove & Dispose Existing Pier Superstructure and Piles	SF	$15	4,123	$61,845
Furnish & Install New Galv. Steel Pile for Float	EA	$8,000	22	$176,000
Furnish & Install Moorage Floats	SF	$100	400	$40,000
Furnish & Install Breakwater Floats	SF	$250	3,324	$831,000
Furnish & Install Gangway	LS	$65,000	1.5	$97,500
Furnish & Install Water & Fire Protect. (Motor. boat portion for both floats)	LF	$200	880	$176,000
Furnish & Install Boat Sewage Pumpout, Sewer Piping, Elect. Supply	LS	$100,000	1	$100,000

CONSTRUCTION COSTS		
	Sub Total	$1,752,345
	Sales Tax (Excluding Mobilization)	$150,234
	Total Construction Costs:	$1,902,579

CONTINGENCY ITEMS				
Design Contingency	Percentage	20%	$1,752,345	$350,469
Planning Contingency	Percentage	20%	$1,752,345	$350,469
Permitting and Engineering	Percentage	20%	$1,752,345	$350,469
Construction Contingency (as % of pre-tax project cost)	Percentage	20%	$1,752,345	$350,469

TOTAL PROJECT COST:	**$3,310,000**

Project: **Luther Burbank Dock Reconfiguration Alternatives: Preliminary Opinion of Probable Construction Cost**

Client: Mercer Island Parks and Recreation
Job No.: 24-18-016
Design By: BGM Date: 1/2/2019
Checked by: SMK Date:

File: #N/A

Reid Middleton
728 - 134th SW, Suite 200
Everett, WA 98204
(425) 741-3800
(425) 741-3900 FAX

Preliminary Opinion of Probable Cost
Alternative 1 Non-Motorized: 1/2 New Moorage Float

Note: This cost estimate is approximate. Actual construction bids may vary significantly from this statement of probable costs due to timing of construction, changed conditions, labor rate changes, or other factors beyond the control of the estimators.

Description	Units	Unit Price	Quantity	Total
Mob/Demob	LS	$11,000	1	$11,000
Environmental Controls	LS	$30,000	0.33	$10,000
Pier Repairs	LS	$100,000	0	$0
Remove & Dispose Existing Pier Superstructure and Piles	SF	$15	0	$0
Furnish & Install New Galv. Steel Pile for Float	EA	$8,000	4	$32,000
Furnish & Install Moorage Floats	SF	$100	400	$40,000
Furnish & Install Breakwater Floats	SF	$250	0	$0
Furnish & Install Gangway	LS	$65,000	0.5	$32,500
Furnish & Install Water & Fire Protect. (Motor. boat portion for both floats)	LF	$200	0	$0
Furnish & Install Boat Sewage Pumpout, Sewer Piping, Elect. Supply	LS	$100,000	0	$0
CONSTRUCTION COSTS			Sub Total	$125,500
			Sales Tax (Excluding Mobilization)	$11,450
			Total Construction Costs:	$136,950

CONTINGENCY ITEMS				
Design Contingency	Percentage	20%	$125,500	$25,100
Planning Contingency	Percentage	20%	$125,500	$25,100
Permitting and Engineering	Percentage	20%	$125,500	$25,100
Construction Contingency (as % of pre-tax project cost)	Percentage	20%	$125,500	$25,100

TOTAL PROJECT COST: $240,000

EXISTING LINEAR MOORAGE		
Slip Size	No. of Slips	Total LF
22'	6	132
24'	8	192
Linear Pier Moorage (North Pier)	--	330
Linear Pier Moorage (South Pier)	--	330
Linear Pier Moorage (West Pier)	--	130
Linear Float Moorage	--	50
Total	**14**	**1,164**

PROPOSED LINEAR MOORAGE		
Slip Size	No. of Slips	Total LF
30'	15	450
Linear Pier Moorage (Existing Pier to Remain)	--	415
Linear Float Moorage (Non-Motorized)	--	102
Linear Float Moorage (Motorized)	--	393
Total	**15**	**1,360**

EXISTING OVERWATER COVERAGE	
Dock	Square Feet
Linear Pier Moorage (North Pier)	1,923
Linear Pier Moorage (South Pier)	1,547
Linear Pier Moorage (West Pier)	3,411
Linear Float Moorage (including gangway)	571
Total	**7,452**

PROPOSED OVERWATER COVERAGE	
Dock	Square Feet
Linear Pier Moorage (Existing Pier to Remain)	2,683
Linear Float Moorage (Non-Motorized)	546
Linear Float Moorage (Breakwater)	4,169
Total	**7,397**

Notes:
Proposed overwater coverage does not include any reduction in area from grated decking.

5'x60' GANGWAY
EXISTING FINGER PIER TO BE REMOVED
102 ft
8 ft
55 ft
45 ft
60 ft
75 ft
5'x60' GANGWAY
EXISTING PIER TO BE REMOVED
POSSIBLE PUMPOUT STATION
4 ft
25 ft
30 ft
76 ft
80 ft
100 ft
12 ft
BREAKWATER FLOAT
12 ft
203 ft
59 ft
EXISTING PIER TO BE REMOVED

Legend

Description
MOTORIZED USE
NON-MOTORIZED USE

N

100 ft

dMiddleton
728 134th Street SW · Suite 200
Everett, Washington 98204
Ph: 425 741-3800

LUTHER BURBANK - PROPOSED DOCK RECONFIGURATION

MERCER ISLAND PARKS AND RECREATION

DECEMBER 2018

ALTERNATIVE 1

Robert W. Droll, Landscape Architect, PS

Memo

Job No. 13024

To: Jason Kintner, Mercer Island Parks & Recreation Department
From: Don Campbell, RLA
Date: March 26, 2013
Re: South Mercer Playfields Backstops

At your request, I visited the South Mercer Playfields this morning to observe the site conditions with regards to the backstops for the three Little League Fields (Fields 1, 2 & 3). You have received complaints that the backstops do not prevent foul balls from entering the pedestrian plaza and drive/parking area behind the backstops thereby creating an apparent unsafe situation.

You requested RWD to define Options to improve safety. The following is a list of Options for your consideration. The Options fall into two basic categories: 1; Backstop/netting at the source (Source Protection), 2; netting over the plaza (Plaza Protection).

A. Source Protection

A.1 Remove existing backstop and install a 32 foot tall backstop with netting (see sheets L7.4-L6 as an example).

A.2 Remove existing netting above 6 foot chain link fence and install 4, 8 inch by 40 foot posts to secure a wire rope system from which netting can be suspended. This system is similar to the netting system at Safeco Field.

B. Plaza Protection

B.1 Install a netting/post system from the back stops inward terminating at the planter, assuming you wish to retain the tree in the planter.

B.2 Remove the tree in the planter and install a netting/post system over the plaza.

You stated that you seek solutions to this issue at least cost, so it bears stating that using the existing backstop posts can not be done because it is apparent these posts are already at load capacity (as evident by their slight bending). All solutions require the installation of 4-8 inch posts minimum. The proposed posts can be directly set into a concrete anchor or flange mount onto a concrete footing. In either case existing concrete paving will have to be removed and replaced. These Options are not inexpensive and will result in disturbance of existing improvements.

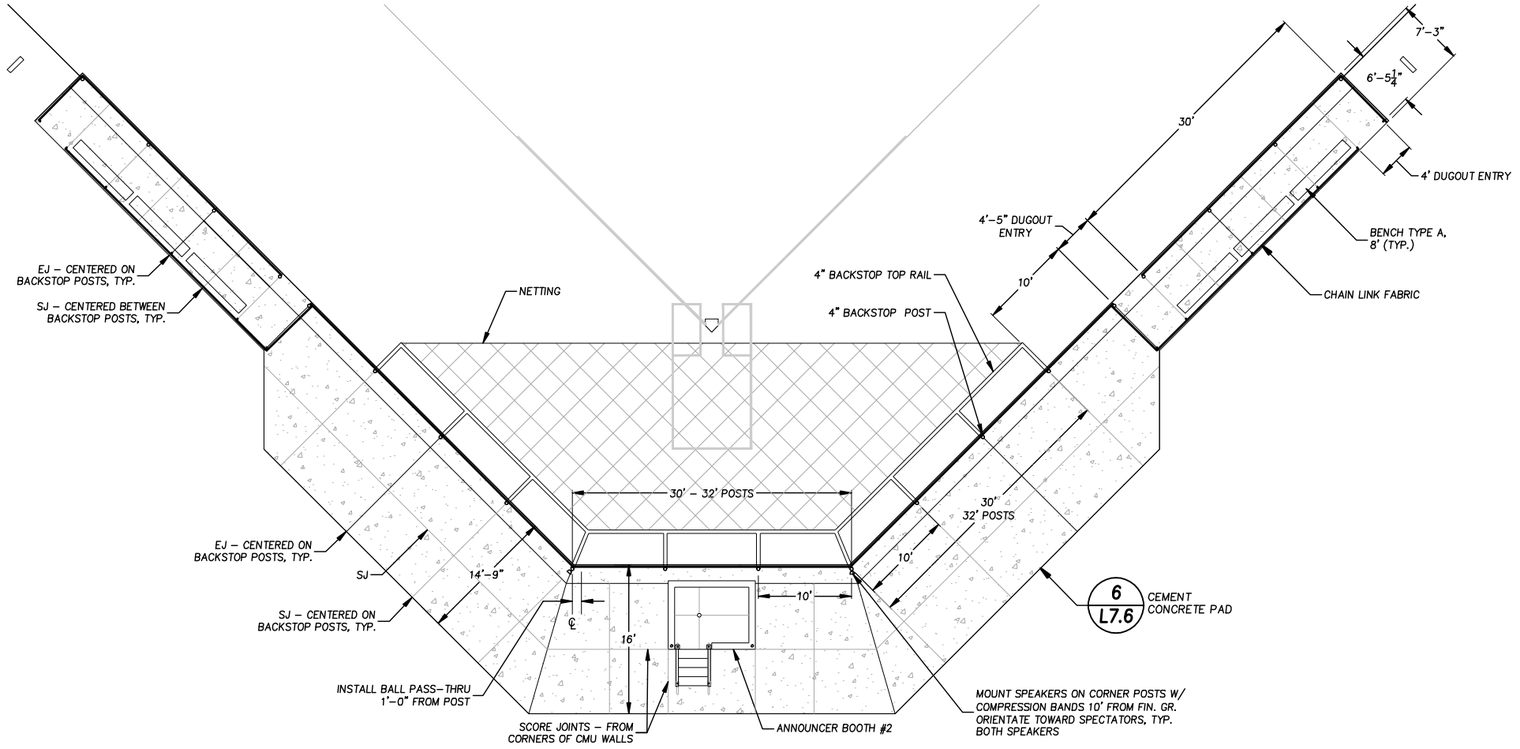
Some may opine that that these solutions appear to be overkill, for there are plenty examples of netting being attached to existing 4 inch posts, and they seem to be working just fine. This is true, however, none of those situations were probably truly designed in strict compliance with the IBC and engineering standards, rather they were probably just installed by resourceful volunteers. When we design new Little League Fields we recommend a minimum 24 foot backstop, but encourage Clients to go with a 32' backstop; when the field will be used almost exclusively for Little League play, almost all of the Clients opt for a 24' backstop. Clients who choose the 32' backstop program Little League, fast pitch softball and slow pitch softball games on the field; they feel they need a higher level of protection for a higher level of play.

In our experience, the backstop level of protection (24 foot) at South Mercer Playfields can be found to be the dominant, typical protection level for Little League complexes across the United States. Most Little League

4405 7th Avenue, Lacey, WA 98503, 360.456.3813, email: d2@rwdroll.com

facility providers decided (probably strongly influenced by funding levels) that this protection level is appropriate for their project. Backstops 24 feet tall and lower are typically produced by fence companies as standard, inexpensive backstops. When backstops are higher than 24 feet tall, backstops are custom designed and engineered with large diameter posts and a deeper footing, yielding higher capital costs. Spectators at, and players in a baseball game understand and accept inherent risks of the game, and as such, attempt to be cognizant of where the ball is during play. When one considers the relative low level of play, typical funding levels for Little League Field capital development (low), and the understanding/acceptance of the inherent risks of the game, it is understandable that 24 foot backstops are typical for Little League Fields throughout the United States. Each community needs to define their own risks tolerance and protection level and be prepared to fund their projects accordingly.

There are many Pros/Cons and costs associated with each Option; we look forward to discussing these with you at your earliest convenience. Thanks!

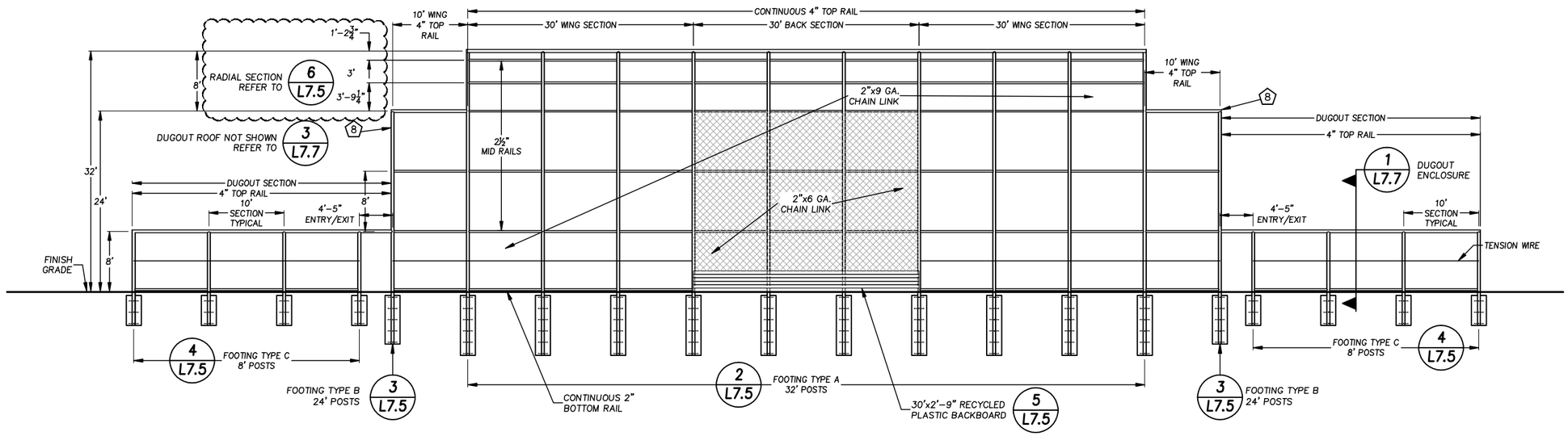


1 L7.4 Typical Softball Backstop Layout

SCALE 1/8"=1'–0"

Installation Note

1. ALL DIMENSIONS ARE TO CENTERLINE OF POSTS.



2 L7.4 Typical Softball Backstop Section/Elevation

SCALE 1/8"=1'–0"

Robert W. Droll
Landscape Architect, PS

4405 7th Avenue SE, Ste. 203
Lacey, WA 98503
(360) 456-3613
Fax: (360) 493-2063
E-mail: bob@rwdroll.com

Recreational Facilities Design
Landscape Architecture
Site Planning
Environmental Design
Urban Design
Land Planning
Project Management

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

Robert W. Droll
Certificate No. 530

Recrea Facilities at Albi Stadium

Item 3.

Spokane Parks & Recreation Department
Spokane, Washington

Project No.	07064
Drawing	L7.4 softball details
Designed By	CJB, RWD
Drawn By	CJB
Checked By	RWD

Revision

Date	Change
4/13/09	32' POST RADII

Date: 02/23/09

Backstop Plan & Section/Elevation

L7.4

Sheet ____ of ____

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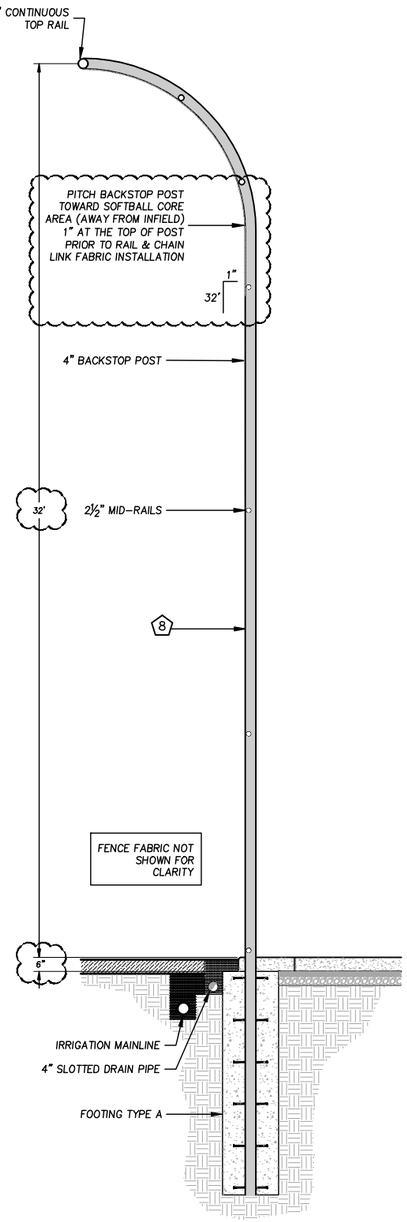
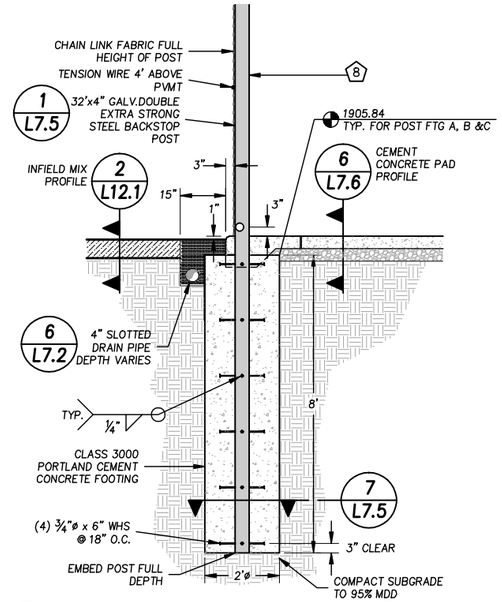
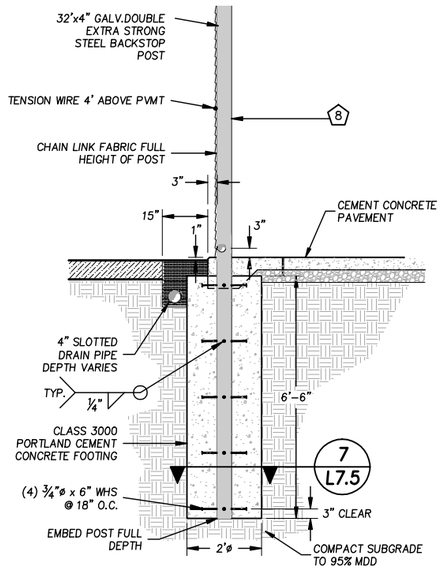


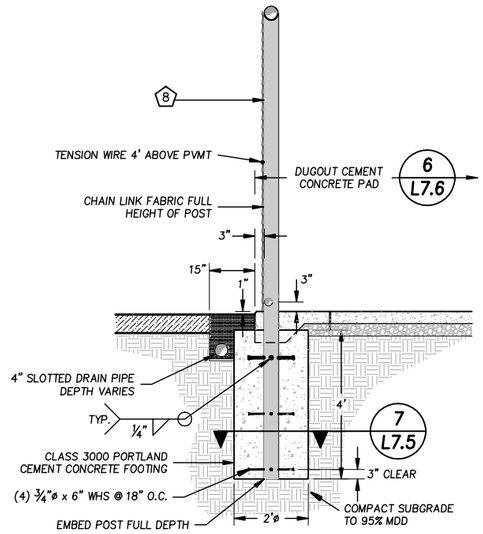
1 L7.5 **32' Post - Typical**
SCALE 3/8"=1'-0"



2 L7.5 **32' Post Footing Typical - Type A**
SCALE 1/2"=1'-0"



3 L7.5 **24' Post Footing Typical - Type B**
SCALE 1/2"=1'-0"



4 L7.5 **8' Post Footing Typical - Type C**
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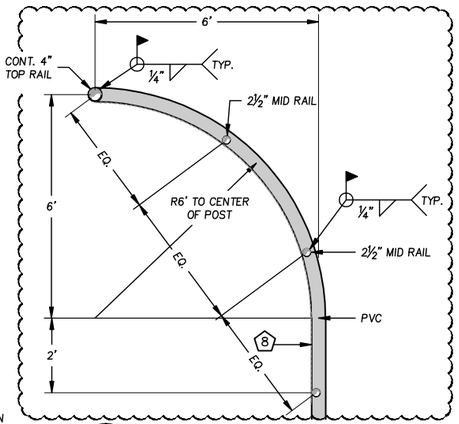

6 L7.5 **32' Post Radial Section Typ.**
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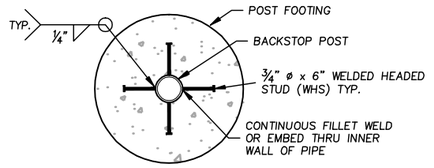
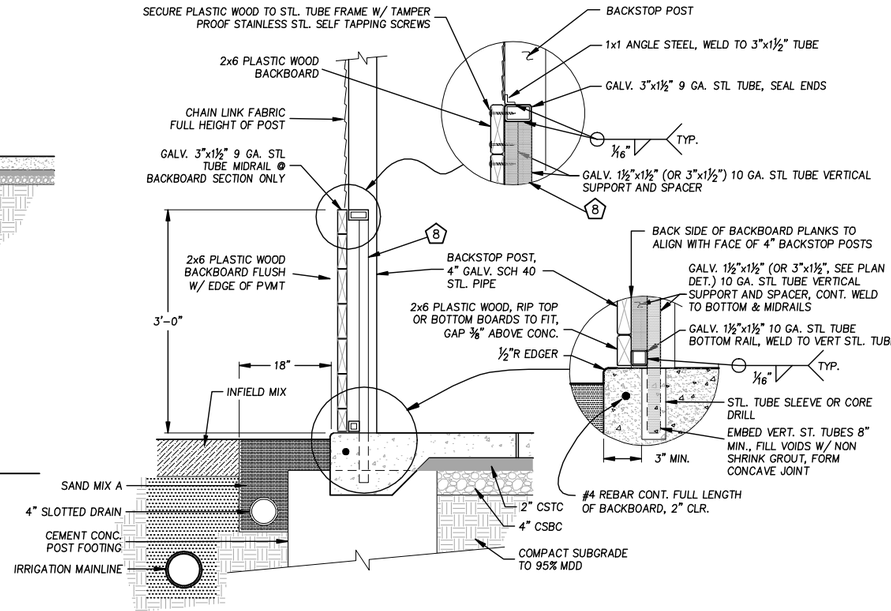
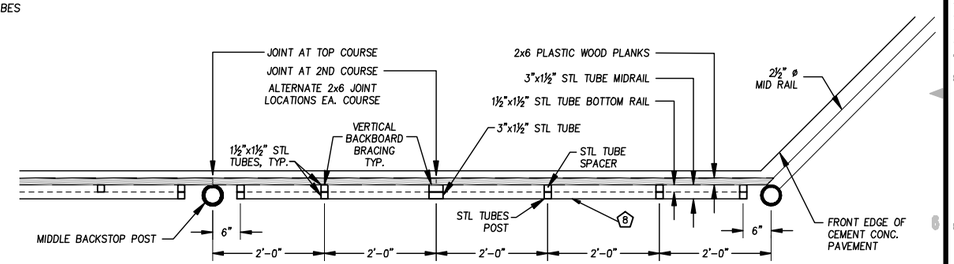


7 L7.5 **WHS - Welded Headed Stud Array Typ.**
SCALE 1"=1'-0"



5 L7.5 **Recycled Plastic Backboard**
SCALE 1"=1'-0"



8 L7.5 **Backstop Backboard Plan**
SCALE 1/2"=1'-0"

Item 3.

Recrea Facilities at Albi Stadium

Spokane Parks & Recreation Department
Spokane, Washington

Robert W. Droll
Landscape Architect, PS
4405 7th Avenue SE, Ste. 203
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(360) 456-3613
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Recreational Facilities Design
Landscape Architecture
Site Planning
Environmental Design
Urban Design
Land Planning
Project Management

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

Robert W. Droll
Certificate No. 839

Project No. 07064
Drawing L7.4 softball details
Designed By CJB, RWD
Drawn By CJB
Checked By RWD

Revision

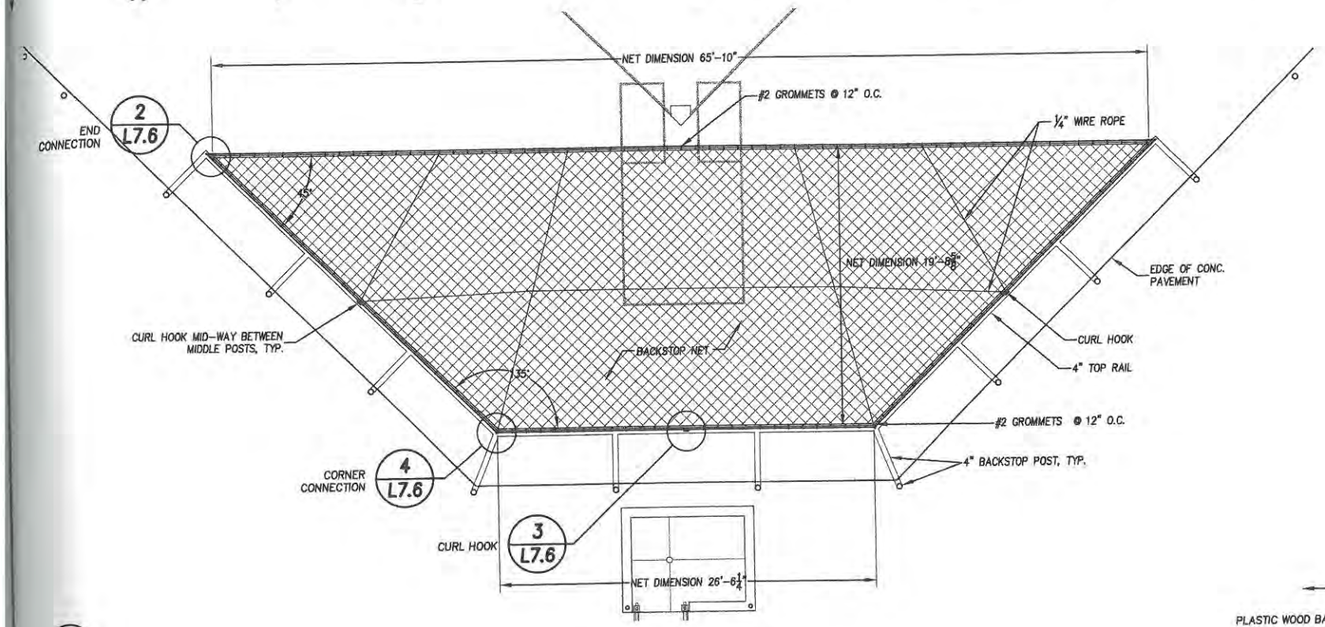
Date	Change
4/13/09	32' POST RADII
Date:	02/23/09

Backstop Details

L7.5

Sheet ____ of ____

O:\2007\07064JoeAlbiDesign\Construction Drawings 100%\L7.4 softball details.dwg, s ball det L7.5, 4/13/2009 9:51:52 AM



1 L7.6 Softball Safety Net
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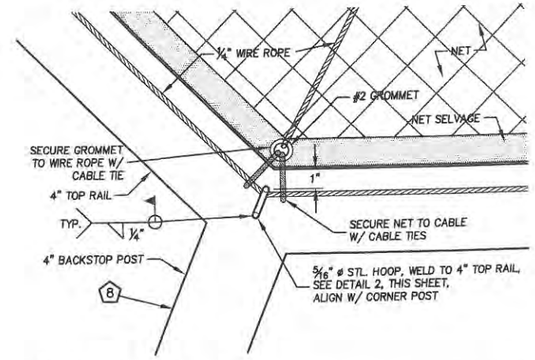

4 L7.6 Corner Connection
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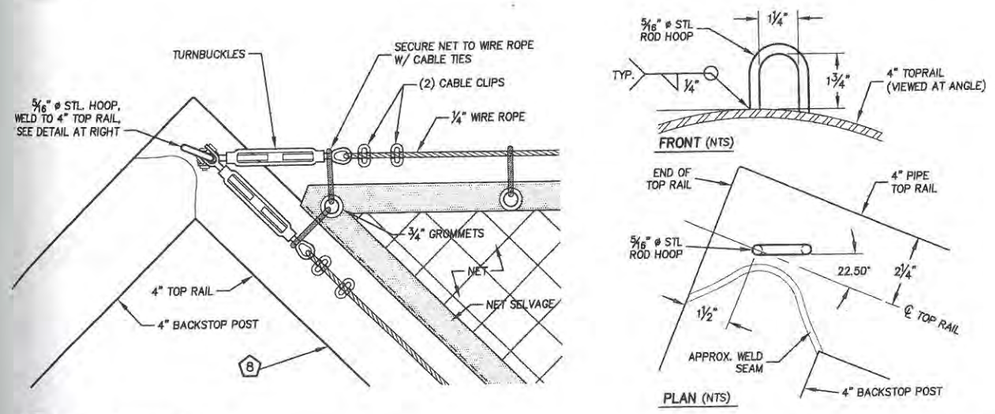

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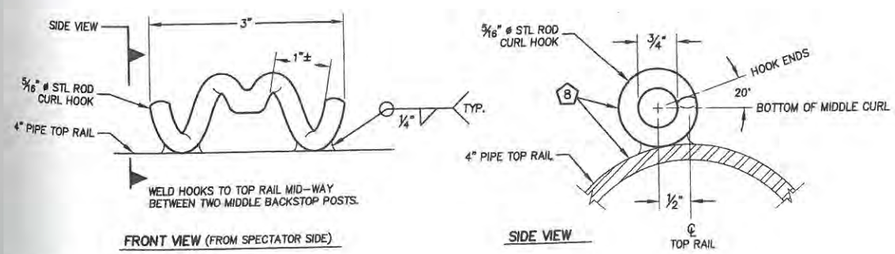

3 Curl Hook
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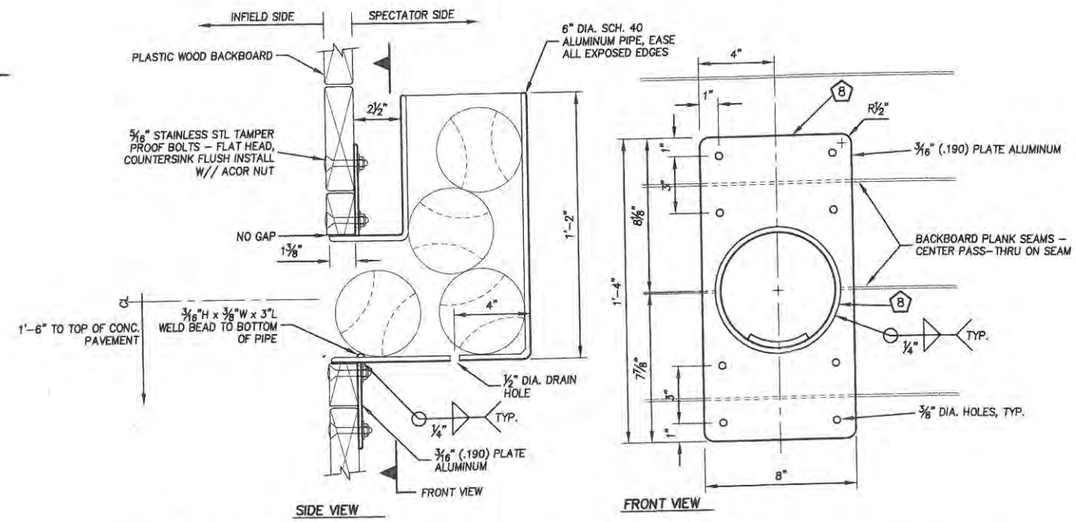
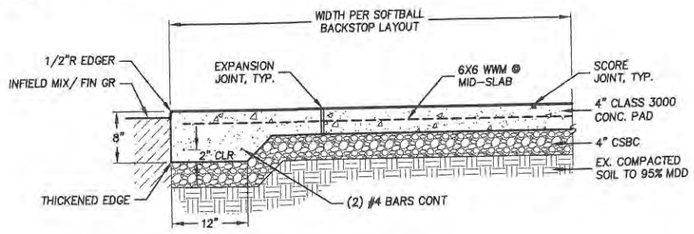


5 L7.6 Ball Pass-Thru
SCALE 1/4"=1"



6 L7.6 Cement Concrete Pad
SCALE 1"=1'-0"

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Recreational Facilities Design
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STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
Robert W. Droll
Certificate No. 530

Recreation Facilities at Albi Stadium

Spokane Parks & Recreation Department
Spokane, Washington

Project No. 07064
Drawing L7.4 softball details

Designed By CJB, PM, RWD
Drawn By PM
Checked By RWD

Revision

Date	Change

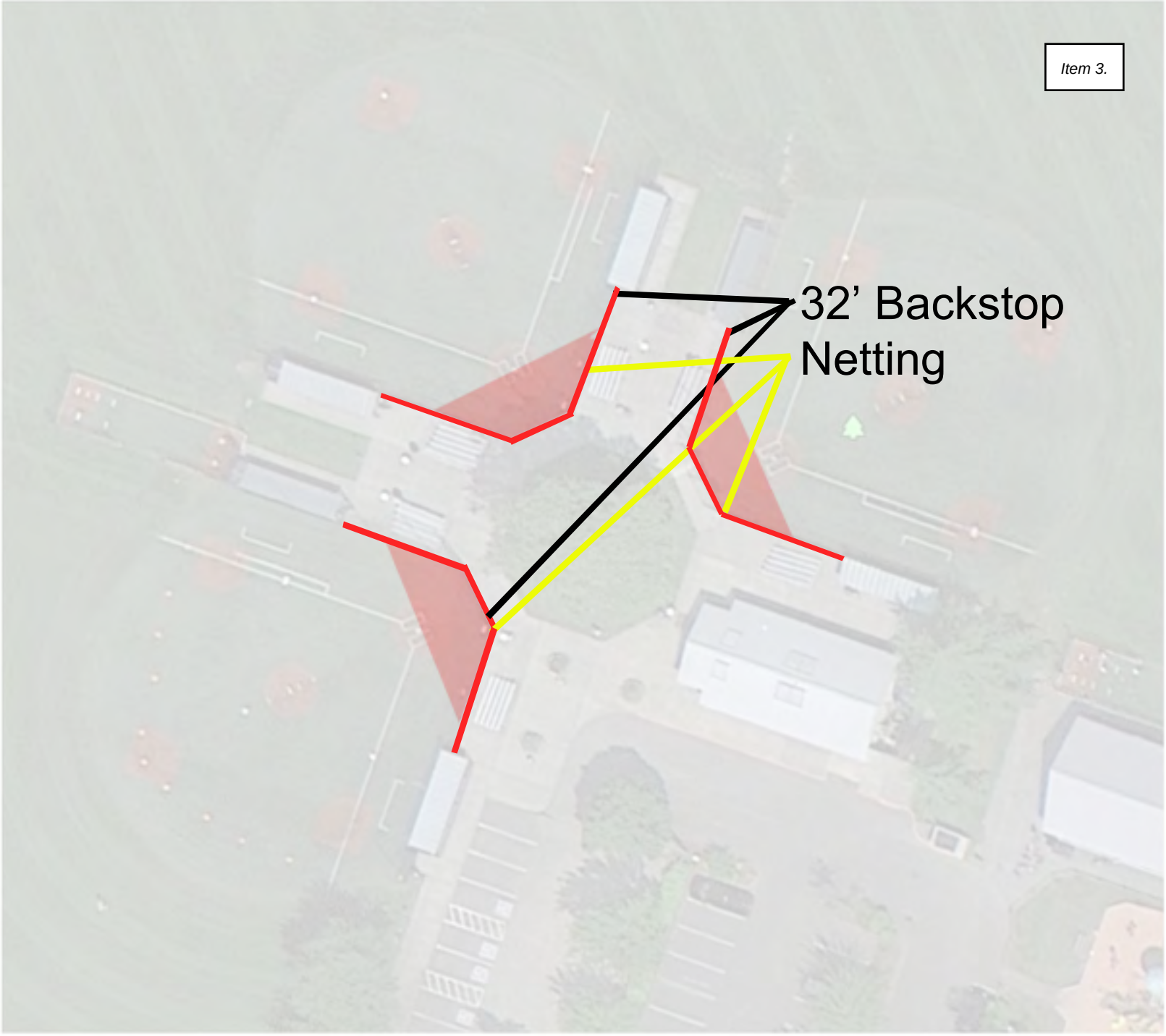
Date: 02/23/09

MICHAEL SZRAMEK STATE OF WASHINGTON 20760 STRUCTURAL ENGINEER PROFESSIONAL ENGINEER 11/19/09

Backstop Details

L7.6

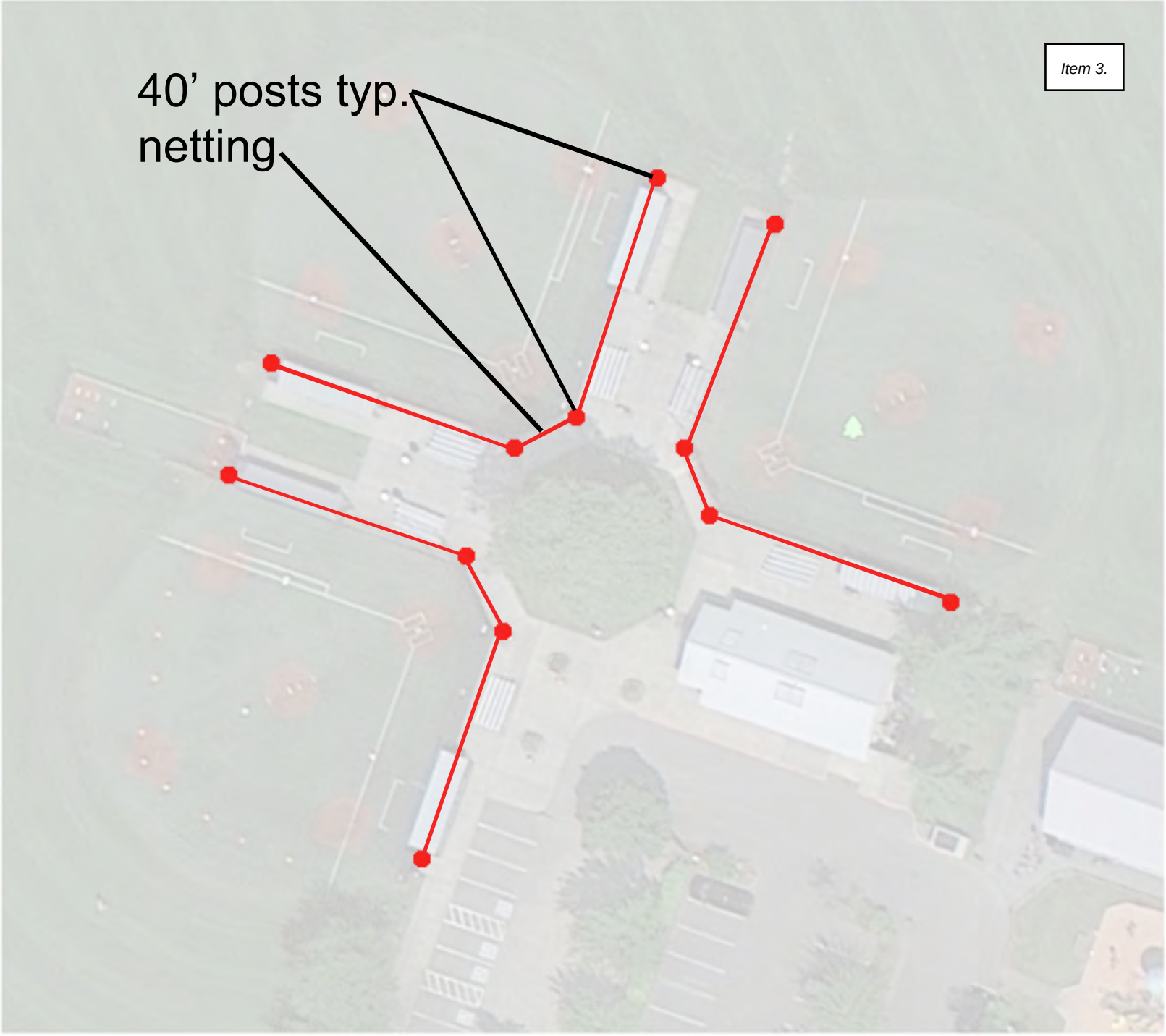
Sheet ___ of ___



Mercer Island Parks & Recreation
South Mercer Playfields

Option A.1

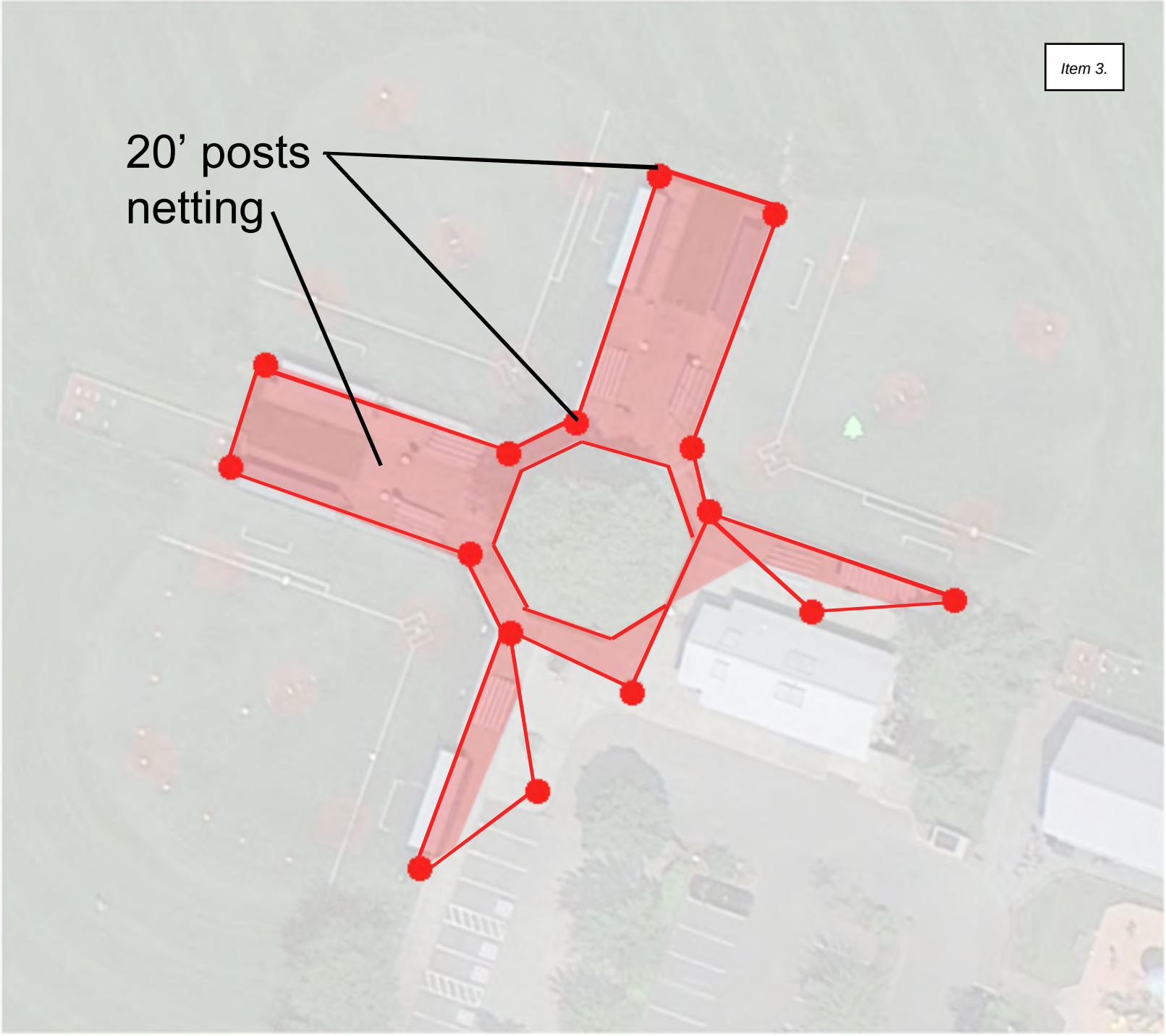
RWD 3/26/13



Mercer Island Parks & Recreation
South Mercer Playfields

Option A.2

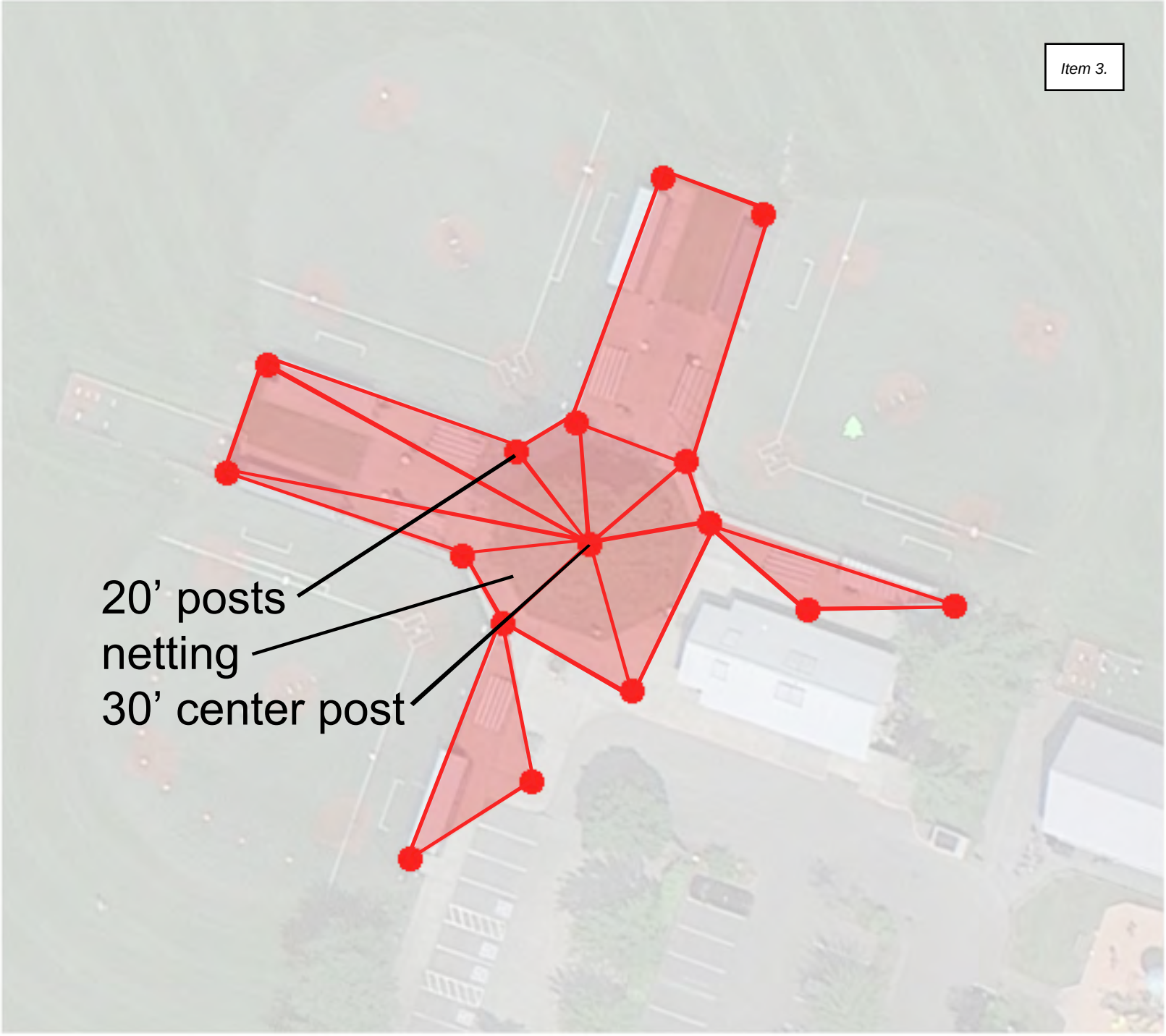
RWD 3/26/13



Mercer Island Parks & Recreation
South Mercer Playfields

Option B.1

RWD 3/26/13



Mercer Island Parks & Recreation
South Mercer Playfields

Option B.2

RWD 3/26/13

CITY OF MERCER ISLAND

Parks & Recreation Department

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7870 | www.mercergov.org

Parks and Recreation Commission
February 6, 2020

Aubrey Davis Master Park Trail Safety Improvements

To: Parks & Recreation Commission

From: Paul West, Capital Projects and Planning Manager

Date: January 30, 2020

Upon adoption of the Aubrey Davis Master Plan, the Parks and Recreation Commission was directed by Council to develop a scope of work for the $500K grant from the Department of Commerce (DOC) for safety improvements on the Mountains to Sound Trail ("MTS Trail"). At the January 8 Arts Council / Parks and Recreation Commission joint meeting, staff provided an overview to the Arts Council members and Parks and Recreation Commissioners regarding the three trail safety projects that were assigned top priority in the Aubrey Davis Park Master Plan. The projects were:

1. **West Mercer Way Crossings**
2. **Intersections and Crossings**
3. **Restroom Conflict Zone**

At the February 6 Parks and Recreation Commission meeting, Commissioners will discuss scoping for safety improvements on the MTS Trail. Specifically the Parks and Recreation Commission will begin to define:

- the limits of the project area
- the objectives for safety and trail user experience that the project should consider, by location where applicable
- approaches that the commission would specifically include for, or exclude from consideration, if any.

Once the Parks and Recreation Commission defines a scope of work for the project, the scope will be presented to City Council for approval. Following approval of the recommended scope by City Council, staff will work with DOC to get the scope of work approved for the grant agreement. Staff will then work collaboratively with a consultant, WSDOT and the Commission to develop a schedule of trail improvements.

Some conditions and constraints of this project are:

- The grant from the Dept. of Commerce is approximately $500k. It was appropriated by the Washington State legislature specifically for trail safety improvements on the MTS Trail. The City cannot execute a grant agreement and access the funds until we have an approved scope of work.
- Any project that involves WSDOT property must have the continuous involvement and final approval of WSDOT.
- WSDOT will require that trail engineering and design work conform to generally accepted transportation standards and practices.
- The Mountains to Sound Trail is almost entirely on WSDOT property.
- WSDOT staff will charge time to the project budget.
- Mercer Island City Council has asked the Commission and the City Manager to recommend a scope of work by the end of March.

NEXT STEPS:

Staff requests the following:

1. Discuss a scope of trail safety improvements
2. Discuss the agenda for final decision-making in March
3. Schedule a special meeting for Commissioners to walk potential project sites prior to March to develop an understanding of the project scope

Mercer Island Parks & Recreation

Parks & Recreation Commission Meeting Planning Schedule

Date: **2/6/20**	
Action items from previous meeting	**Presenter**
1. Aubrey Davis Park Trail safety improvements - continued	Paul
Agenda items	**Presenter**
1. Capital Project Overview	Paul
2. Review planning schedule (this document) and procedures	Tammy/Ryan

Date: **3/3/20 – Joint with City Council – Study Session**	
Agenda items	**Presenter**
1. Joint meeting with City Council	
2. PROS Plan	
3. Other projects – South Mercer Backstops	
4. Aubrey Davis Park Trail safety improvements	Paul West
5. Parks Assessment Update - **Tentative**	Demarche Consulting

Date: **3/5/20**	
Action items from previous meeting	**Presenter**
1.	
2.	
Agenda items	**Presenter**
1. Donations overview	Diane Mortenson
2. Aubrey Davis Park Trail safety improvements	Paul West

Mercer Island Parks & Recreation

Parks & Recreation Commission Meeting Planning Schedule

Date: **4/2/20**	
Action items from previous meeting	**Presenter**
1. PROS Plan Open House #1	Ryan Daly, Paul West
2. Luther Burbank Dock Reconfiguration	Paul West
3.	
Agenda items	**Presenter**
1. Off-leash dogs overview	Paul West
2. Budget Review	Ryan & LaJuan
3. Funding for Parks and Recreation	LaJuan Tuttle
4. Girl Scouts campaign	Diane Mortenson

Date: 5/7/20	
Action items from previous meeting	**Presenter**
1. PROS Plan Stakeholder meetings, Pop Up events	Ryan Daly, Paul West
2.	
3.	
Agenda items	**Presenter**
1. Parks Ballfield User Groups	Merrill
2. South Mercer Ballfield Backstop	Paul
3.	
4.	

Mercer Island Parks & Recreation

Parks & Recreation Commission Meeting Planning Schedule

Date: 6/4/20	
Action items from previous meeting	**Presenter**
1.	
2.	
3.	
Agenda items	**Presenter**
1.	
2.	
3.	
4.	

Date: 7/16/20 – Joint Meeting with Open Space Trust Board	
Action items from previous meeting	**Presenter**
1.	
2.	
3.	
Agenda items	**Presenter**
1.	PROS Plan: protection of park properties	Ryan Daly, Paul West
2.	
3.	
4.	

Mercer Island Parks & Recreation

Parks & Recreation Commission Meeting Planning Schedule

Date: 9/3/20	
Action items from previous meeting	**Presenter**
1. PROS Plan: Open House #2	Ryan Daly, Paul West
2.	
3.	
Agenda items	**Presenter**
1.	
2.	
3.	
4.	

Date: 10/1/20	
Action items from previous meeting	**Presenter**
1. PROS Plan: City Council Study Session October 20	Ryan Daly, Paul West
2.	
3.	
Agenda items	**Presenter**
1.	
2.	
3.	
4.	

Mercer Island Parks & Recreation

Parks & Recreation Commission Meeting Planning Schedule

Date: 11/5/20	
Action items from previous meeting	**Presenter**
1. PROS Plan: City Council draft plan November 17	Ryan Daly, Paul West
2.	
3.	

Agenda items	**Presenter**
1.	
2.	
3.	
4.	

Date: 12/3/20	
Action items from previous meeting	**Presenter**
1.	
2.	
3.	

Agenda items	**Presenter**
1.	
2.	
3.	
4.	

2019/2020 Work Plan

Aubrey Davis Master Plan

- Community engagement plan for Arts & Cultural component - Work with Arts Council

Once the vision is established by AC how to engage community in that vision

P.R.O.S. Plan

- Recreation & arts programming
- Cultural awareness/inclusion, programming and promotion
- Cost Recovery

Parks/trails/facilities

Community engagement "meet and greets" for plan

Create criteria for community ideas presented to us

Community Engagement

- Marketing/promotion
- Cultural awareness/inclusion, programming and promotion
- New partners/sponsors

Meet and Greets

Parks & Recreation Department 2020 - 2021 Work Plan

About the Parks & Recreation Department:

The Parks & Recreation Department assumes a major role in developing a sense of community and enhancing the quality of life for Mercer Island residents. The department is responsible for recreation programs, facility rentals, special events, open space management, park maintenance, capital projects, and emergency preparedness. The department is also responsible for the operation of the Mercer Island Community and Event Center, 475+ acres of parks and open space, and more than 30 miles of trail and is supported by the Parks & Recreation Commission, Arts Council, and Open Space Conservancy Trust.

Work Item 1: Council Priority 1 - Prepare for the Impacts of Growth and Change			
Description	Dept. Lead / Liaison	Staff Comments	Timeline
Regulations Related to Camping on Public Property *Study potential updates to current regulations regarding camping, temporary structures, and overnight parking on public property. Explore potential options for partnerships with area shelters (see Martin v. Boise).*	Ryan Daly	High Priority	*2020* *2021* **Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4**
Study/Evaluate Permanent Protection for Parks/Open Space *Consider a referendum or other measure to permanently protect parks and open space and/or to require a vote to divest or modify use of park land. The Parks and Recreation Department is currently working on an update to the Parks, Recreation and Open Space (PROS) Plan. This policy discussion may be something to include as part of that work item in 2020-21.* ***Pending further scoping and evaluation.***	TBD	City Council Priority	**Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4**

Work Item 2: Council Priority 2 - Articulate, confirm, and communicate a vision for effective and efficient City services. Stabilize the organization, optimize resources, and develop a long-term plan for fiscal sustainability.			
Description	Dept. Lead / Liaison	Staff Comments	Timeline
2021-2022 Biennial Budget Development *Work with the City Manager's Office and the Finance Department to prepare the 2021-2022 budget recommendation.*	Ryan Daly	High Priority	*2020* *2021* **Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4**
Organizational Assessments *Throughout 2019 the Department evaluated departmental functions and staff responsibilities. In 2020, a reorganization of duties will be finalized along with an updated organizational chart. Complete Parks & Recreation organizational assessment.*	Ryan Daly	High Priority	→ **Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4**

Work Item 2: Council Priority 2 - Articulate, confirm, and communicate a vision for effective and efficient City services. Stabilize the organization, optimize resources, and develop a long-term plan for fiscal sustainability. (Continued)			
Description	Dept. Lead / Liaison	Staff Comments	Timeline

WSDOT Maintenance Agreement *Engage WSDOT in negotiations regarding level of service, compensation and ongoing capital investment for Aubrey Davis Park.*	Ryan Daly, Paul West, Jason Kintner	High Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
Master Facility Use Agreement *Complete cost analysis, review inter-local agreements, and work with School District to draft a new Master Facility Agreement.*	Ryan Daly, Matt Mornick, Alaine Sommargren	High Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
Maintenance Management System for Parks/CityWorks *Replace manual processes to manage Parks & Recreation assets with a software system for the management of park facilities.*	Alaine Sommargren, Matt Mornick	High Priority	→ Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
Review and Update Facility Rental and Program Fees *Review and update fees for recreation programs, athletic field usage, MICEC Rentals, and park events. Include in new City-wide Master Fee Schedule.*	Zach Houvener, Diane Mortenson, Ryan Daly	High Priority	→ Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
Negotiate New Agreements with Union *Negotiate new Collective Bargaining Agreement with AFSCME.*	Ryan Daly	High Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

Work Item 3: Administration			
Description	Dept. Lead / Liaison	Staff Comments	Timeline
Support Boards and Commissions *Assist Arts Council, Parks & Recreation Commission, and Open Space Conservancy Trust with creation of work plans, goal setting, and recruitment. Provide staff support for implementing and completing work plan items.*	Ryan Daly, Alaine Sommargren, Diane Mortenson	Medium Priority	*2020* *2021* → Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
King County Sewer Interceptor Project *King County is finalizing design of sewer replacement. Construction will impact City infrastructure and City park land. Coordinate design and mitigate impacts of construction.*	Paul West, Alaine Sommargren, Jason Kintner	High Priority	→ Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Update 1% for the Arts Acquisition Policy *In coordination with the Arts Council review and update processes for acquiring art for public places. Including acquisition, selection and implementation.*	Sarah Bluvas, Diane Mortenson	Medium Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
Internal Communication Strategies *Implement internal strategies to better inform and engage employees and boost morale. Evaluate meeting schedules, frequency, and correspondence methods.*	Ryan Daly	Medium Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Work Item 3: Administration (Continued)			
Description	Dept. Lead / Liaison	Staff Comments	Timeline
Leadership Continuing Education			*2020* *2021*

Build current and future leaders within the Parks & Recreation Department through education, training and opportunities that enhance experience and confidence.	Ryan Daly	Medium Priority	→ Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →

Work Item 4: Capital Improvement & Planning

Description	Dept. Lead / Liaison	Staff Comments	Timeline
Parks, Recreation, and Open Space Plan (PROS Plan) *Implement a community driven process to update the PROS Plan as a document that reflects the community values for parks and recreation, while providing a guiding document for parks related investment.*	Paul West, Ryan Daly	High Priority	2020 2021 → Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
ADA Transition Plan *Complete ADA Transition Plan to meet federal requirements.*	Paul West, Jason Kintner	High Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
Aubrey Davis Park Trail Safety Upgrades *Coordinate with Parks & Recreation Commission and Arts Council to determine and implement trail safety upgrades using $500K in grant funds from Dept. of Commerce. Grant funds must be used in accordance with the legislative intent of improving trail conditions in Aubrey Davis Park.*	Paul West, Ryan Daly	Medium Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Soil Research Plan Test Site *Partner with Bartlett Tree Research Labs to test bio-char for root zone renovation on alley of trees in Aubrey Davis Park. This will inform renovation planning of large areas of landscaping. No cost to City or WSDOT.*	Paul West	Low Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Luther Burbank Dock Replacement *Three year project to replace/reconfigure with floating docks consistent with the 2006 Luther Burbank Park Master Plan. The Boating Facilities Program grant is providing $173,000 toward the design of a reconfigured boating facility. The construction phase of this project is not funded.*	Paul West, Ryan Daly	Medium Priority	→ Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
South Mercer Playfield Backstop Project *Collaborate with stakeholder groups and the P&R Commission to evaluate, design and implement safety improvement measures for baseball/softball backstops at South Mercer Playfield.*	Paul West, Ryan Daly	Medium Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

Work Item 5: Maintenance and Operations

Description	Dept. Lead / Liaison	Staff Comments	Timeline
Maintain Park Facilities *Maintain over 165 acres of developed parks. Implement work plans focused on safety, aesthetics, landscape health, and infrastructure up* *Maintain athletic fields and provide support for over 7,000 an* *ours of athletic field usage.*	Alaine Sommargren	High Priority	2020 2021 → Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Site Security	Zach Houvener		

Evaluate and implement controls on facility access for park restrooms, batting cages and facilities.	Zach Houvener, Alaine Sommargren	High Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3
Natural Areas Restoration *Implement a work plan focused on ecological health and sustainability, tree canopy retention, and climate change resilience for the 307 acres of open space. Manage invasive and noxious weeds, remove invasive trees, remove ivy rings, and install native plants.*	Alaine Sommargren	High Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

Work Item 6: Community Engagement, Marketing, Recreation Programs, and Facility Rentals			
Description	Dept. Lead / Liaison	Staff Comments	Timeline
Community Partnerships *Utilize community partnerships to enhance and maintain resident quality of life. Engage diverse community resources. Develop procedures to identify how community supported events are coordinated and funded in partnership with the City. Support the coordination of community special events such as: Pumpkin Walk, Lighting at Mercerdale, and MercerFest.*	Diane Mortenson, Ryan Daly	Medium Priority	*2020* *2021* → Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Marketing and Communications Support *Review, adapt, and update current department communication methods to enhance relationship with the community. Implement a marketing strategy that evaluates needs and increases awareness of Department services (i.e. Recreation Guide, website, Let's Talk, social media, event booths, promotional material, and marketing facility rentals through trade shows).*	Diane Mortenson, Zach Houvener	Medium Priority	→ Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Recreation Programs and Events *Offer a variety of recreation programs and events dedicated to diverse recreational experiences. In 2019, MIPR offered over 100 summer camp programs welcoming 1,800+ campers (89% of the campers were Mercer Island residents).*	Zach Houvener, CJ Stanford	Medium Priority	→ Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →

Work Item 6: Community Engagement, Marketing, Recreation Programs, and Facility Rentals (Continued)			
Description	Dept. Lead / Liaison	Staff Comments	Timeline
Maintain MICEC and Maximize User Experience *Implement work plans that prioritize and are reflective of ongoing maintenance needs and capital improvement for the 42,000 square foot facility which accommodates over 140,000 patrons annually. Offering 7,000+ hours of facility rentals.*	Zach Houvener, Merrill Thomas-Schadt	Medium Priority	*2020* *2021* → Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 →
Volunteer Policy Manual *Coordinate with HR to update and convert Volunteer Handbook to a Po anual.*	Diane Mortenson, YFS, HR	Medium Priority	Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4
Str ne Volunteer On-boarding Process	Diane Mortenson		

Collaborate with HR to utilize the NEOGOV platform to implement an online application and onboarding process for volunteers.	Diane Mortenson, YFS, HR	Medium Priority	**Q1 Q2 Q3 Q4** Q1 Q2 Q3