CITY OF MILWAUKIE

PLANNING COMMISSION MINUTES

City Hall Council Chambers
10722 SE Main Street
www.milwaukieoregon.gov

August 23, 2022

Present:	Lauren Loosveldt, Chair Joseph Edge, Vice Chair Joshua Freeman Greg Hemer Robert Massey Jacob Sherman	**Staff:**	Justin Gericke, City Attorney Adam Heroux, Associate Planner Brett Kelver, Senior Planner Vera Kolias, Senior Planner Laura Weigel, Planning Manager
Absent:	Amy Erdt		

(00:12:29)
1.0 Call to Order — Procedural Matters*

Chair Loosveldt called the meeting to order at 6:30 p.m., read the conduct of meeting format into the record, and Native Lands Acknowledgment.

Note: *The information presented constitutes summarized minutes only. The meeting video is available by clicking the Video link at http://www.milwaukieoregon.gov/meetings.*

(00:13:34)
2.0 Information Items

Laura Weigel, Planning Manager, shared that agenda item 6.1, a work session item regarding downtown design review, has been pushed to the September 27 Commission meeting and the public hearing on the topic will be pushed to the October 25 meeting.

Weigel introduced Commissioner Joshua Freeman and welcomed him to the Commission.

(00:14:57)
3.0 Audience Participation

No information was presented for this portion of the meeting.

(00:15:19)
4.0 Community Involvement Advisory Committee (CIAC)

Weigel noted that staff will provide an update on the upcoming joint Neighborhood District Association (NDA) and Commission meeting at the next Commission meeting.

Commissioner Hemer noted the need to engage with NDA leaders during the land use application process in all land use cases but especially for Type III applications and applications located downtown. **Weigel** responded that NDA engagement can be discussed further during the work session on September 27.

(00:18:50)
5.0 Hearing Items

(00:18:51)
5.1 VR-2022-005, 2433 SE Dove St

Commissioner Hemer disclosed ex parte communications between him and Kristina Smith, one of the applicants. There was no communication regarding the details of the application package. **Chair Loosveldt** disclosed potential ex parte communication with the applicants as she lives within 300 feet of the subject property. There has been no communication regarding the application package.

Brett Kelver, Senior Planner, shared the staff report. The applicants are seeking a variance from the lot coverage, rear yard setback, and roof slope standards to officialize existing development on the site. The applicants propose to remove 1,376 square feet of existing structures, lowering the lot coverage from 36% to 33%, 3% more than the 30% maximum lot coverage standard. Additionally, the proposed carport roof slopes are consistent with the roof slope of the mid-century-modern-style primary structure. Staff recommended approval of the requested variances, as they are reasonable and appropriate, minimize negative impacts to surrounding properties, and maintain consistency with the primary structure.

Commissioner Sherman asked whether the development tree code would be triggered by this development, had it been permitted at the outset. **Kelver** responded that the development may have required tree plantings if trees were removed for the development. **Kristina and Kevin Smith, the Applicants,** noted that they intend to plant three trees in the side yard near 25th Ave.

Robert Westcott, a Milwaukie resident, noted support for the application.

Vice-Chair Edge noted support for the application.

VR-2022-005, 2433 SE Dove St, was approved by a 6-0 vote with the findings and conditions of approval presented in the staff report.

(00:42:38)
5.2 NR-2022-001, Milwaukie Bay Park, 11211 SE McLoughlin Blvd

Vice-Chair Edge noted service on the Clackamas County Pedestrian and Bikeway Advisory Committee, the applicant presented the proposed

improvements to the committee and Edge offered feedback on the improvements in his capacity as an advisory committee member. **Commissioner Sherman** noted that he has engaged in conversations with community members and elected officials regarding Milwaukie Bay Park.

Vera Kolias, Senior Planner, presented the staff report, the application package is phase 3 of the Milwaukie Bay Park improvements. Some improvements include a nature-themed children's play area, water features, pedestrian and bicycle pathways, public restrooms, public art, new tree plantings, and improved stormwater management facilities. The application packages include Willamette greenway review, conditional use review, natural resource review, downtown design review, and a requested variance to the pervious pavement requirement for internal park pathways. To address the natural resource review approval criteria the applicants provided a natural resource report that addresses the impacts of the proposed development within the mapped natural resource areas. The improvements meet both the community needs and City direction regarding park improvements. The proposed development minimizes negative natural resource impact to the extent practicable and avoids impacts to ecological functions by limiting new development to areas further from the vegetated corridor, above existing pathways. Additionally, the application package is compatible with the river, it enhances and protects views through view corridors. Staff recommended approval of the application package and adoption of the findings, conditions of approval, and other requirements presented in the staff report apart from one subsection in other requirements under section 7, Stormwater Management, which staff has removed. **Commissioner Freeman** asked for clarification regarding the subsection that staff has removed. **Kolias** responded that the section removed was a requirement that post development stormwater runoff not exceed predevelopment runoff.

Kolias noted comments were received from ODOT.

The Applicant Team represented by Jonathan Beaver and Heather Koch shared the applicant presentation which included images of various iterations of park designs and of proposed park features. The park improvements were initially designed in the 2010 North Clackamas Parks and Recreation (NCPRD) parks master plan, since the initial plan NCPRD has changed the design to better respond to the river and existing natural resources, provide increased accessibility, and update the water feature to be interactive. The changes were informed by three public meetings from August 2018 to April 2019 and construction is planned to begin in spring of 2023. **Commissioner Massey** asked if the survivability of the park elements were considered, noting the 1996 flood that filled most of the park. **Beaver** answered that the applicant team did consider the site's vulnerability to flooding and balanced distance to the river with the distance to McLoughlin Blvd to determine the location of park features. **Commissioner Sherman** asked where within the site the proposed 200 cubic yard cut was being taken from and whether the cut will provide increased flood protection. **Beaver** responded that the cut is happening along the river evenly

throughout the site but with slightly more cut on the southern portion of the site.

Commissioner Sherman asked how stakeholders such as the Conderated Tribes of the Grand Ronde were involved in the public engagement. **Koch** responded that NCPRD met with bicycle and pedestrian advocates, disability advocates, Confederated Tribes of the Grand Ronde cultural resources staff, and other marginalized groups for input to inform the design.

Commissioner Hemer asked what measures will be taken to protect natural resources from hazards caused by utilities on the site during flood events. **Beaver** responded that all electric ports are higher than the high-wake area and all electrical service sources will be located above the 100-year floodplain.

Commissioner Hemer asked why the amphitheater was relocated closer to the river. **Koch** responded that the current configuration was a result of prioritizing keeping infrastructure heavy features out of the floodplain and a preferred location identified in the public engagement process.

Gary Klein, a Milwaukie resident, shared past and current experiences serving on boards and committees aimed at improving the Milwaukie riverfront and parks and noted support for the application.

Vice Chair Edge noted support for the application package.

Commissioner Sherman noted the lengthy process of improving Milwaukie Bay Park and support for the application package.

NR-2022-001, Milwaukie Bay Park at 11211 SE McLoughlin Blvd, was approved by a 6-0 vote.

(01:43:22)
6.0 Work Session Items

(01:43:23)
6.1 Code Amendments: Downtown Design Review

No information was presented for this portion of the meeting.

(01:43:32)
6.2 Code Amendments: High Density Zones

Vera Kolias, Senior Planner and Adam Heroux, Associate Planner, presented the staff report, since the August 9 work session staff has changed the proposed replacement definition of boarding house from micro-unit development to single room occupancy (SRO). Micro-unit development was removed because it is easily confused with other small units that are different than the intended use. **Commissioner Hemer and Chair Loosveldt** noted support for the updated term

and definition.

Kolias noted that the micro-unit development Vice-Chair Edge mentioned at the August 9 meeting would be considered a multi-family development under our code.

Kolias added that staff proposes removing some language from the definition of temporary or transitional facilities to clarify that the housing type is intended to be temporary and provide supportive services such as counseling and rehabilitation. **Commissioner Hemer** noted that the supportive services should be optional and open ended in the definition.

Kolias continued, currently the code has three different definitions and types of offices, staff proposes consolidating them into two types. The consolidation would combine professional and administrative offices with traditional offices under the professional and administrative term. Staff is proposing the consolidation to apply to all zones. **Commissioner Hemer** asked whether the amount of expected customer interaction could be used in the definition to distinguish the office types. **Kolias** responded that the proposed definition does include customer interaction as a criterion. **Commissioner Sherman** noted support for the consolidation. **Vice Chair Edge** asked how the proposed consolidation will affect the R1B zone. **Kolias** responded that both of the proposed types of offices will be permitted in the R1B zone.

Kolias added staff proposes to consolidate the high density residential zones from five zones to three with R2.5 being absorbed by R3 and R1 absorbed by R2. Kolias added, staff proposed personal and business services to be permitted within the existing R1B zone and allowed through a conditional use process in both the R3 and R2 zones. **Commissioner Hemer** noted support for permitting personal and business services outright in all high density residential zones. **Vice Chair Edge** noted support for permitting personal and business services in the R3 zone but stressed the importance of maintaining residential character. Edge asked whether the high density zones are intended to be multi-unit residential areas. **Kolias** responded yes, multi-unit developments are permitted currently in the R2 and R1B zones and staff proposes permitting them in the R3 zone where they currently require a conditional use review. Additionally, staff proposes permitting residential care facilities outright in the R3 zone as well. **Commissioner Massey** asked why personal and business services were not originally permitted in the high density residential zones. **Kolias** responded that the high density zones are intended to provide a buffer from the larger development in the downtown zone and as such they allow limited commercial use. The extent of commercial use allowed in each high density zone is dictated by proximity to downtown and moderate density residential zones. **Commissioner Sherman** expressed concern for unintentionally limiting development in the neighborhood mixed use (NMU) zone if commercial uses are limited in surrounding high density zones. **Commissioner Hemer** noted the development standards in the high density zones will limit the scale of any new commercial development. Hemer noted

support for consolidating all high density zones into one zone and expanding it along both King Rd and 32nd Ave. **Commissioner Sherman** questioned whether singe unit developments should be permitted outright in high density zones. **Weigel** responded that that question will be further examined throughout the housing capacity analysis/housing production strategy (HCA/HPS). **Vice Chair Edge** noted support for permitting personal and business services outright with limitations in development standards to ensure appropriate scale of development. **Commissioner Hemer** noted the benefits of allowing increased commercial activity in the high density zones which include increased walkability, livability, and sustainability. **Commissioners Hemer, Loosveldt, Edge, Sherman, and Freeman** noted their support for permitting multi-unit and residential care facilities in the R3 zone.

Vice Chair Edge and Chair Loosveldt noted support for permitting all proposed commercial uses in all high density zones outright. **Commissioner Hemer** noted support for permitting hotels and motels outright while bed and breakfasts and vacation rentals permitted through the conditional use process in all high density zones. **Chair Loosveldt** expressed concern requiring a conditional use for bed and breakfasts and vacation rentals. **Kolias** noted that staff has received negative comments related to vacation rentals in residential zones. **Commissioner Sherman** noted support for allowing hotels and motels through a conditional use process and concern permitting vacation rentals and bed and breakfasts outright. **Commissioner Massey** noted the different nature of vacation rentals and bed and breakfasts and expressed concern grouping the two uses together. **Vice Chair Edge** reiterated that the proposed changes apply only to high density residential zones and asked staff how many single unit properties exist in these zones. **Kolias** responded that staff can provide single unit numbers at the following meeting.

Vice Chair Edge noted support for consolidating all high density zones into one zone. **Weigel** noted that staff has been working to update the neighborhood hubs plan to bring commercial development to other areas of the City, this will provide the Commission another opportunity to look at the high density zones throughout the City.

Commissioner Hemer asked whether a conditional use process requires public notice. **Kolias** responded yes, the conditional use process requires a Type III quasi-judicial hearing decided by the Planning Commission and notification is sent to properties within 300 feet of the subject property.

Kolias continued, the proposed zone consolidation will increase the maximum allowed density in both the R3 and R2 zones increasing the R3 zone maximum to 17.4 units/acre and 32 units/acre in the R2 zone. Additionally, staff proposes to eliminate the minimum site size requirements. **Commissioner Freeman** noted support for increased density in the high density zones. **Vice Chair Edge and Chair Loosveldt** noted support for a higher maximum density than the staff proposal. **Kolias** noted the upcoming HCA/HPS and staff preference to receive

the results from those projects to better inform a significant increase in maximum density. **Commissioner Massey** asked for clarification on the timeline of the HCA/HPS projects. **Weigel** responded that the HCA will be competed in November 2022 and the HPS in January 2023. **Commissioner Hemer** asked how the density requirements are applied. **Kolias** responded that the density requirements are applied on a per site basis.

Commissioner Sherman asked whether public notice is necessary for these updates to the high density zones. **Kolias** responded that no public notice mailing is necessary for these updates. **Chair Loosveldt** asked what noticing is happening for the application. **Kolias** responded that physical public notices are posted at all city buildings and NDAs are being notified via email. **Commissioner Massey** noted that he could mention the application to the NDAs through his role in the CIAC. **Chair Loosveldt** agreed but noted the meeting with the NDAs will happen after the application hearing.

(03:10:15)

7.0 Planning Department/Planning Commission Other Business/Updates

Weigel suggested that the October 11, 2022 meeting with the NDAs also include time on the agenda for the annual meeting as the CIAC. Jon Hennington, Equity Program Manager for the City, can discuss the City's equity work during the CIAC portion of the meeting. **Commissioner Massey and Chair Loosveldt** noted support for meeting as the CIAC during the October 11 meeting.

Commissioner Sherman requested that staff notify the Confederated Tribes of the Grand Ronde during noticing periods for significant applications.

Commissioner Hemer noted the upcoming NDA picnics and encouraged Commissioners to attend their NDA picnics.

(03:13:03)

10.0 Forecast for Future Meetings:

September 13, 2022	Hearing Item(s):	1. VR-2022-007, 9696 SE Omark Dr. 2. VR-2022-008, 11925 SE 70th
	Work Session Item(s):	1. Code Amendments: Climate Friendly Equitable Communities
September 27, 2022	Hearing Item(s):	1. Code Amendments: High Density zones
	Work Session Item(s):	1. Code Amendments: HB 2180 EV Charging Code 2. Downtown Design Review

Meeting adjourned at approximately 9:40 p.m.

Respectfully submitted,

Will First, Administrative Specialist II

CITY OF MILWAUKIE

AGENDA

August 23, 2022

PLANNING COMMISSION

milwaukieoregon.gov

Hybrid Meeting Format: the Planning Commission will hold this meeting both in person at City Hall and through Zoom video. The public is invited to watch the meeting in person at City Hall, online through the City of Milwaukie YouTube page (https://www.youtube.com/channel/UCRFbfqe3OnDWLQKSB_m9cAw), or on Comcast Channel 30 within city limits.

If you wish to provide comments, the city encourages written comments via email at planning@milwaukieoregon.gov. Written comments should be submitted before the Planning Commission meeting begins to ensure that they can be provided to the Planning Commissioners ahead of time.
To speak during the meeting, visit the meeting webpage (https://www.milwaukieoregon.gov/bc-pc/planning-commission-102) and follow the Zoom webinar login instructions.

1.0 Call to Order – Procedural Matters — 6:30 PM

1.1 Native Lands Acknowledgment

2.0 Information Items

3.0 Audience Participation — This is an opportunity for the public to comment on any item not on the agenda

4.0 Community Involvement Advisory Committee (CIAC)

5.0 Hearing Items

5.1 2433 SE Dove St

Summary: Variances to lot coverage and rear-yard setback to officialize an existing detached carport structure.

Applicant: Kristina and Kevin Smith

Address: 2433 SE Dove St

File: VR-2022-005

Staff: Senior Planner Brett Kelver

5.2 Milwaukie Bay Park

Summary: Phase 3 of Milwaukie Bay Park improvements, including: new restroom, interactive water feature, playground, picnic area, pathways, plantings, new stormwater management infrastructure, and a gathering space.

Applicant: Heather Koch, NCPRD

Address: 11211 SE McLoughlin Blvd

File: NR-2022-001 (primary file); WG-2022-001; VR-2022-006; DR-2022-001

Staff: Senior Planner Vera Kolias

6.0 Work Session Items

6.1 Code Amendments: Downtown Design Review

Summary: Review and provide feedback on the staff proposal to update the downtown design review code language and review process.

Staff: Senior Planner Brett Kelver

6.2 Code Amendments: High Density Zones

Summary: Review and provide feedback on the staff proposal to update the High Density zoning code.

Staff: Senior Planner Vera Kolias and Associate Planner Adam Heroux

7.0 Planning Department/Planning Commission Other Business/Updates

8.0 Forecast for Future Meetings

September 13, 2022	Hearing Item(s):	VR-2022-007, 9696 SE Omark Dr
	Work Session Item:	Code Amendments: Climate Friendly Equitable Communities

Milwaukie Planning Commission Statement

The Planning Commission serves as an advisory body to, and a resource for, the City Council in land use matters. In this capacity, the mission of the Planning Commission is to articulate the Community's values and commitment to socially and environmentally responsible uses of its resources as reflected in the Comprehensive Plan

1. **PROCEDURAL MATTERS.** If you wish to register to provide spoken comment at this meeting or for background information on agenda items please send an email to planning@milwaukieoregon.gov.
2. **PLANNING COMMISSION and CITY COUNCIL MINUTES.** City Council and Planning Commission minutes can be found on the City website at www.milwaukieoregon.gov/meetings.
3. **FORECAST FOR FUTURE MEETINGS.** These items are tentatively scheduled but may be rescheduled prior to the meeting date. Please contact staff with any questions you may have.
4. **TIME LIMIT POLICY.** The Commission intends to end each meeting by 10:00pm. The Planning Commission will pause discussion of agenda items at 9:45pm to discuss whether to continue an agenda item to a future date or finish the item.

Public Hearing Procedure

Those who wish to testify should attend the Zoom meeting posted on the city website, state their name and city of residence for the record, and remain available until the Chairperson has asked if there are any questions from the Commissioners. Speakers are asked to submit their contact information to staff via email so they may establish standing.

1. **STAFF REPORT.** Each hearing starts with a brief review of the staff report by staff. The report lists the criteria for the land use action being considered, as well as a recommended decision with reasons for that recommendation.
2. **CORRESPONDENCE.** Staff will report any verbal or written correspondence that has been received since the Commission was presented with its meeting packet.
3. **APPLICANT'S PRESENTATION.**
4. **PUBLIC TESTIMONY.** Comments or questions from interested persons and testimony from those in support or opposition of the application.
5. **QUESTIONS FROM COMMISSIONERS.** The commission will have the opportunity to ask for clarification from staff, the applicant, or those who have already testified.
6. **REBUTTAL TESTIMONY FROM APPLICANT.** After all public testimony, the commission will take rebuttal testimony from the applicant.
7. **CLOSING OF PUBLIC HEARING.** The Chairperson will close the public portion of the hearing. The Commission will then enter into deliberation. From this point in the hearing the Commission will not receive any additional testimony from the audience but may ask questions of anyone who has testified.
8. **COMMISSION DISCUSSION AND ACTION.** It is the Commission's intention to make a decision this evening on each issue on the agenda. Planning Commission decisions may be appealed to the City Council. If you wish to appeal a decision, please contact the Planning Department for information on the procedures and fees involved.
9. **MEETING CONTINUANCE.** Prior to the close of the first public hearing, *any person* may request an opportunity to present additional information at another time. If there is such a request, the Planning Commission will either continue the public hearing to a date certain or leave the record open for at least seven days for additional written evidence, argument, or testimony. The Planning Commission may ask the applicant to consider granting an extension of the 120-day time period for making a decision if a delay in making a decision could impact the ability of the City to take final action on the application, including resolution of all local appeals.

Meeting Accessibility Services and Americans with Disabilities Act (ADA) Notice

The city is committed to providing equal access to public meetings. To request listening and mobility assistance services contact the Office of the City Recorder at least 48 hours before the meeting by email at ocr@milwaukieoregon.gov or phone at 503-786-7502. To request Spanish language translation services email espanol@milwaukieoregon.gov at least 48 hours before the meeting. Staff will do their best to respond in a timely manner and to accommodate requests. Most Council meetings are broadcast live on the city's YouTube channel and Comcast Channel 30 in city limits.

Servicios de Accesibilidad para Reuniones y Aviso de la Ley de Estadounidenses con Discapacidades (ADA)

La ciudad se compromete a proporcionar igualdad de acceso para reuniones públicas. Para solicitar servicios de asistencia auditiva y de movilidad, favor de comunicarse a la Oficina del Registro de la Ciudad con un mínimo de 48 horas antes de la reunión por correo electrónico a ocr@milwaukieoregon.gov o llame al 503-786-7502. Para solicitar servicios de traducción al español, envíe un correo electrónico a espanol@milwaukieoregon.gov al menos 48 horas antes de la reunión. El personal hará todo lo posible para responder de manera oportuna y atender las solicitudes. La mayoría de las reuniones del Consejo de la Ciudad se transmiten en vivo en el canal de YouTube de la ciudad y el Canal 30 de Comcast dentro de los límites de la ciudad.

Milwaukie Planning Commission:
Lauren Loosveldt, Chair
Joseph Edge, Vice Chair
Greg Hemer
Robert Massey
Amy Erdt
Jacob Sherman

Planning Department Staff:
Laura Weigel, Planning Manager
Vera Kolias, Senior Planner
Brett Kelver, Senior Planner
Adam Heroux, Associate Planner
Ryan Dyar, Assistant Planner
Will First, Administrative Specialist II

CITY OF **MILWAUKIE**

To: Planning Commission

Through: Laura Weigel, Planning Manager

From: Brett Kelver, Senior Planner

Date: August 16, 2022, for August 23, 2022, Public Hearing

Subject: **File:** VR-2022-005
Applicant/Owner: Kristina and Kevin Smith
Address: 2433 SE Dove St
Legal Description (Map & Tax Lot): 2S1E01BB06700
NDA: Island Station

ACTION REQUESTED

Approve application VR-2022-005 and adopt the recommended Findings and Conditions of Approval found in Attachments 1 and 2, respectively. This action would approve variances to increase the allowed lot coverage and reduce the required rear yard setback and minimum roof pitch requirement for a detached accessory structure (carport).

BACKGROUND INFORMATION

A. Site and Vicinity

The site is located at the northwest corner of Dove Street and 25th Avenue and is approximately 15,000 sq ft in area. The property is comprised of three underlying subdivision lots from the Milwaukie Heights plat (1893) and is developed with a single-unit house with extensive attached covered areas, a detached garage, and detached carport. (see Figure 1).

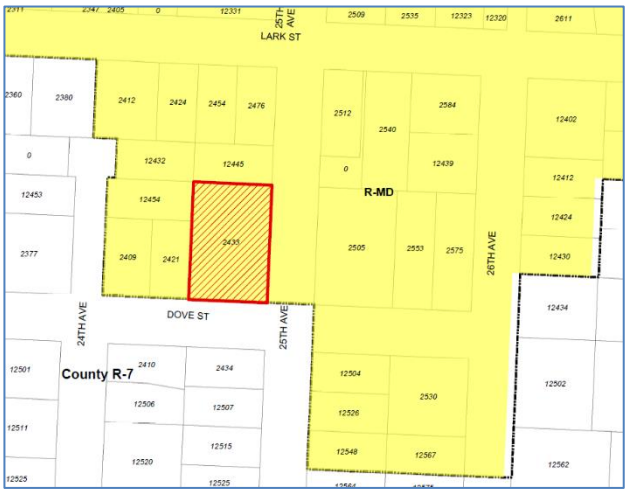
Figure 1. Aerial View

The subject property is adjacent to the Milwaukie city boundary along its Dove Street frontage, with unincorporated Clackamas County immediately to the south. The surrounding area is also zoned for moderate density residential use and is developed primarily with other single-unit houses.

B. Zoning Designation

The subject property is currently zoned Moderate Density Residential (R-MD) (see Figure 2)—prior to the recent middle housing code amendments, the property was zoned Residential R-5. As noted above, the subject property is on the border with unincorporated Clackamas County. The surrounding area in Milwaukie has the R-MD zoning designation; the adjacent unincorporated area is zoned Residential R-7.

Figure 2. Existing Zoning (R-MD)



C. Comprehensive Plan Designation

Moderate Density (MD)

D. Land Use History

There is no history of past land use applications for this property.

E. Proposal

The applicants are seeking approval for a newly constructed detached carport that was built without initially obtaining the necessary permits and review. The subject property was already over the maximum allowed lot coverage for the site (30%) and the carport does not meet the rear yard setback of 20 ft, so the applicants have requested variances for both standards. The proposal includes removal of an older attached carport, barbeque deck, and covered patio, which together total more square footage of coverage (1,376 sq ft) than the new carport (968 sq ft). The applicants are working with the Building Department to secure the necessary structural permit(s) for the new carport.

As proposed, the new lot coverage figure would be 33% and the new carport would be located 5 ft from the rear property line. The lot coverage adjustment falls within the allowed range for Type II variances (10%) and is subject to the Type II variance approval criteria. The proposed reduction to the rear yard setback exceeds the allowance for Type II variance review (25% for front, rear, or street-side yards) and requires Type III review. The 13-ft-tall new carport has a very low-sloping roof (less than 2/12 pitch) that is well under the minimum 4/12 pitch required for accessory structures over 10 ft in height.

A plan set and narrative description of the proposal are included in the applicant's submittal materials (see Attachment 3).

KEY QUESTIONS

Summary

Staff has not identified any key questions for Planning Commission deliberation. The requested variances are straightforward and are supported by staff, with only one simple recommended condition of approval. While the new carport was constructed without going through the required permitting and review process, creating an "ask for forgiveness instead of permission" situation, the applicants have worked with staff in good faith to retroactively resolve the land use and building permit aspects of the issue. Staff is offering the same recommendation of approval as if the necessary process had been followed prior to the applicant constructing the new carport.

CONCLUSIONS

Staff recommendation to the Planning Commission is as follows:

1. Approve the requested variances. This will allow the site to have 33% lot coverage and the new carport to be located 5 ft from the rear property line and have a nearly flat roof.
2. Adopt the attached Findings and Conditions of Approval.

CODE AUTHORITY AND DECISION-MAKING PROCESS

The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC).

- MMC Section 19.301 Moderate Density Residential Zones (R-MD)
- MMC Section 19.502 Accessory Structures
- MMC Section 19.911 Variances
- MMC Section 19.1006 Type III Review

This application is subject to Type III review, which requires the Planning Commission to consider whether the applicant has demonstrated compliance with the code sections shown above. In Type III reviews, the Commission assesses the application against review criteria and development standards and evaluates testimony and evidence received at the public hearing.

The Commission has four decision-making options as follows:

A. Approve the application subject to the recommended Findings and Conditions of Approval.

B. Approve the application with modified Findings and Conditions of Approval. Such modifications need to be read into the record.

C. Deny the application upon finding that it does not meet approval criteria.

D. Continue the hearing.

The final decision on these applications, which includes any appeals to the City Council, must be made by November 8, 2022, in accordance with the Oregon Revised Statutes and the Milwaukie Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

COMMENTS

Notice of the proposed changes was given to the following agencies and persons: City of Milwaukie Community Development, Engineering, Building, and Code Compliance Departments; City Attorney; Island Station Neighborhood District Association (NDA) and Land Use Committee (LUC); Clackamas Fire District #1 (CFD); and NW Natural. The following is a summary of the responses received by the City. See Attachment 4 for further details.

- **Ashly Hoffman, member of Island Station NDA LUC:** Support for the requested variances.

ATTACHMENTS

Attachments are provided as indicated by the checked boxes. All material is available for viewing upon request.

		Public Copies	E-Packet
1.	Recommended Findings in Support of Approval	☐	☒
2.	Recommended Conditions of Approval	☐	☒
3.	Applicant's Submittal Materials (received June 16, 2022, unless otherwise noted)		
	a. Application Forms	☒	☒
	b. Narrative	☒	☒
	c. Plan sheets and photos	☒	☒
	d. Preapplication conference waiver		
4.	Comments Received	☒	☒

Key:
Public Copies = materials posted online to application website (https://www.milwaukieoregon.gov/planning/vr-2022-005).
E-Packet = meeting packet materials available one week before the meeting, posted online at https://www.milwaukieoregon.gov/bc-pc/planning-commission-102.

ATTACHMENT 1
Recommended Findings in Support of Approval
File #VR-2022-005, Variances for Smith Carport

Sections of the Milwaukie Municipal Code not addressed in these findings are found to be inapplicable to the decision on this application.

1. The applicants, Kristina and Kevin Smith, have applied for approval of variances to the lot coverage and rear yard setbacks for their property at 2433 SE Dove St. The purpose of the request is to formalize the construction of detached carport structure that was established without first obtaining the necessary permits and review. The applicants have requested variances to the lot coverage standard of the underlying zone and to the rear yard setback standard for accessory structures. The need for an additional variance for the roof pitch of the new carport was identified after the application submittal and is addressed in these findings as well. The land use file number for the variance requests is VR-2022-005.

2. The subject property is approximately 15,000 sq ft in area and is zoned moderate density residential (R-MD). It is at the northwest corner of Dove Street and 25th Avenue. The property is comprised of three underlying lots (Lots 7, 9, and 11) from Block 37 of the Milwaukie Heights subdivision, platted in 1893. The site is developed with a single-unit house with extensive attached covered areas, a detached garage, and the detached carport that is the focus of this application.

   County Assessor records indicate that the house was constructed in 1953, and historical aerial photos show that most of the covered areas were in place by 1996. The applicants purchased the property in 2006 and removed an in-ground swimming pool between 2015 and 2016. The applicants propose to remove several covered areas on the site but retain the newly constructed detached carport and get it properly permitted.

3. The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC):

   - MMC Section 19.301 Moderate Density Residential Zones (R-MD)
   - MMC Section 19.502 Accessory Structures
   - MMC Section 19.911 Variances
   - MMC Section 19.1006 Type III Review

   The application has been processed and public notice provided in accordance with MMC Section 19.1006 Type III Review. A public hearing was held by the Planning Commission on August 23, 2022, as required by law.

4. MMC Section 19.301 Moderate Density Residential Zones (R-MD)

   MMC 19.301 establishes standards for the Moderate Density Residential zone (R-MD), which allows single-unit detached dwellings as an outright permitted use. Development standards are provided in MMC Subsections 19.301.4 and 19.301.5. The applicable standards are addressed as described in Table 4 (Zoning Compliance) below.

Table 4 Zoning Compliance: Applicable R-MD Development Standards			
Standard	**R-MD Requirement** (for lots over 7,000 sq ft)	**Existing**	**Proposed** (removal of attached carport/patio, construction of new carport)
Maximum lot coverage	30%	36%	33%
Minimum vegetation	30%	36%	36%
Front Yard Minimum Vegetation	40%	64%	64%

Many of the R-MD development standards are applicable only to primary structures, and no changes are proposed to the existing house. As noted above in Table 4, the proposed new carport will impact the standards related to maximum lot coverage and minimum vegetation.

Excepting the proposed new carport, the existing development on the site includes the house and attached carport and covered barbeque deck and patio area (4,096 sq ft, 27.3% lot coverage) as well as a detached garage (1,274 sq ft, 8.5% additional coverage), for a total of 36% lot coverage. Prior to the City's recent adoption of code amendments that established the R-MD zone (Ord. 2218, effective June 3, 2022), the subject property was zoned Residential R-5. The 35% coverage standard for the R-5 zone was introduced in the 1968 version of the zoning code. The house was built in 1953 but there is no available record of when the detached garage or attached covered areas were constructed.

In 2012, the code was amended to reduce the maximum lot coverage to 25% for lots more than two-and-a-half times larger than the minimum lot size (5,000 sq ft for the R-5 zone). An increase of 10 percentage points was allowed for portions of the primary structure no taller than one story or 20 ft. With the 2022 code changes, the lot coverage adjustments of MMC 19.301.5.B were revised to apply the 10-point reduction simply to lots over 10,000 sq ft (no reference to minimum lot size) and relate the 10-point increase only to the height of the added coverage (not the number of stories).

Because the existing development was established prior to the adoption of the previous lot coverage adjustments of MMC 19.301.5.B, and since the timing of construction of the various structures and covered areas in relation to one another is unclear, it is reasonable to consider the adjustments of MMC 19.301.5.B to cancel each other out and so accept the basic lot coverage percentage as the standard (previously 35% for the R-5 zone and now 30% for large lots in the R-MD zone). At 36% coverage, the existing development was previously nonconforming with the R-5 standard (35% coverage) and became more nonconforming with the adoption of the new R-MD standard (30% coverage).

The proposal to remove 1,376 sq ft of existing covered area (existing attached carport, barbeque deck, and patio) while adding only 968 sq ft for the new carport will result in a net decrease in lot coverage (from 36% to 33%). The more restrictive lot coverage requirement for large lots in the R-MD zone makes it necessary for the applicants to request a variance to the standard, though only for three percentage points, which is a 10% adjustment and therefore allowable as a Type II variance.

See Finding 6 for a discussion of this variance. A condition has been established to ensure that the structures proposed for removal are removed prior to final inspection for the new detached carport.

As proposed, as conditioned, and with approval of the lot coverage variance discussed in Finding 6, the Planning Commission finds that the applicable R-MD zone standards of MMC 19.301 are met.

5. MMC Section 19.502 Accessory Structures

MMC 19.502 establishes standards for accessory structures, which are structures that are incidental and subordinate to the main use of property and located on the same lot as the main use.

a. MMC Subsection 19.502.1 General Provisions

MMC 19.502.1 establishes general standards for accessory structures, including an allowance for multiple accessory structures as long as requirements for lot coverage and minimum vegetation are met. Accessory structures are subject to the street-side yard setback requirement of the underlying zone (20 ft for an R-MD lot over 7,000 sq ft, as per MMC Table 19.301.4).

The subject property is developed with an existing detached garage and the proposed new carport. As discussed in Findings 4 and 6, the minimum vegetation standard is met, and the applicants have requested an approvable variance to exceed the lot coverage standard. The proposed new carport is set back at least 25 ft from the subject property's street-side boundary along 25th Avenue.

As discussed in these findings and with the variance approved as noted in Finding 6, the applicable standards are met.

b. MMC Subsection 19.502.2 Specific Provisions for Accessory Structures

MMC 19.502.2 provides specific standards for accessory structures. These include height, footprint, and setbacks; a minimum 5-ft setback from the walls of other structures; design standards (including a prohibition on metal siding for structures over 10 ft in height or 200 sq ft in area); and a minimum roof pitch requirement of 4/12 for structures over 10 ft tall. For accessory structures over 600 sq ft in area and over 15 ft in height, the base zone setback standards apply (for an R-MD lot over 7,000 sq ft, 20 ft for the rear yard and 5 ft for the non-street-side yard). No accessory structure is allowed in an actual front yard unless at least 40 ft from the front lot line.

The proposed new carport is 968 sq ft and is not in the front yard or within 5 ft of the non-street-side yard (the western property boundary, in this case). As discussed in Finding 6, the applicants have applied for a variance to allow the new carport to be within 5 ft of the rear property line. The proposed new carport is 5 ft from the adjacent detached garage and is approximately 13 ft in height, with a low-sloping roof that matches the mid-century modern design of the existing house but does not meet the 4/12 pitch requirement. Staff did not identify this issue until after the application was deemed complete and so has addressed the variance criteria for it in Finding 6.

As discussed in these findings and with the variances approved as noted in Finding 6, the applicable standards are met.

The Planning Commission finds that, as proposed and with the variances approved as noted in Finding 6, the applicable standards of this section are met.

6. MMC Section 19.911 Variances

   a. MMC Subsection 19.911.2 Applicability

      MMC 19.911.2 establishes applicability standards for variance requests.

      Variances may be requested to any standard of MMC Title 19, provided the request is not specifically listed as ineligible in MMC Subsection 19.911.2.B. Ineligible variances include requests that result in a change of a review type, change or omission of a procedural step, change to a definition, increase in density, allowance of a building code violation, allowance of a use that is not allowed in the base zone, or the elimination of restrictions on uses or development that contain the word "prohibited."

      The applicants have requested variances to the lot coverage standard of the underlying R-MD zone and to the rear yard setback standard for accessory structures. In addition, staff identified a need for a variance to the roof pitch standard for accessory structures. Although the new carport already exists and was constructed without obtaining the necessary permits and review, there is no building code violation, as the structure is being retroactively reviewed and will demonstrate compliance with the applicable building code requirements.

      The requested variances meet the eligibility requirements.

   b. MMC Subsection 19.911.3 Review Process

      MMC 19.911.3 establishes review processes for different types of variances. MMC Subsection 19.911.3.B establishes the Type II review process for limited variations to certain numerical standards, including a variance of up to 10% for lot coverage standards and up to 25% for front, rear, or street-side yard setbacks. MMC Subsection 19.911.3.C establishes the Type III review process for larger or more complex variations to standards that require additional discretion and warrant a public hearing.

      For the R-MD zone, the maximum allowed lot coverage is 30%; the applicants are proposing 33% lot coverage, which is a 10% increase. For accessory structures over 600 sq ft, the required rear yard setback is 20 ft; the applicants are proposing a 5-ft rear setback. The requested lot coverage variance qualifies for Type II review; the requested accessory structure rear yard setback variance exceeds the 25% limit and so is subject to the Type III review process. There is no Type II variance option related to accessory structure roof pitch, so that variance requires Type III review.

      As per MMC Subsection 19.1001.6.B.1, applications are processed according to the highest numbered review type. As per MMC Subsection 19.911.3.A.3, each variance request must be addressed separately, which includes addressing the applicable approval criteria.

c. MMC Subsection 19.911.4 Approval Criteria

MMC 19.911.4 establishes approval criteria for Type II and Type III variance requests.

The requested variance for lot coverage is subject to the Type II approval criteria. The requested variances for accessory structure rear yard setback and roof pitch are subject to the Type III approval criteria, and the applicants have elected to address the criteria for discretionary relief instead of those for economic hardship.

(1) MMC Subsection 19.911.4.A Approval Criteria for Type II Variances

(a) The proposed variance, or cumulative effect of multiple variances, will not be detrimental to surrounding properties, natural resource areas, or public health, safety, or welfare.

The proposal to increase lot coverage from 30% to 33% will not have any effect on surrounding properties or public health, safety, or welfare. There are no designated natural resources on or near the subject property.

(b) The proposed variance will not interfere with planned future improvements to any public transportation facility or utility identified in an officially adopted plan such as the Transportation System Plan or Water Master Plan.

Lot coverage is not an element that will impact any future public improvements.

(c) Where site improvements already exist, the proposed variance will sustain the integrity of, or enhance, an existing building or site design.

The proposed lot coverage increase will allow a new carport structure over an existing driveway, providing weather protection for a portion of the existing parking area. The large overhangs of the new carport mirror the mid-century modern design of the existing house. The requested variance facilitates the removal of an older attached carport on the west side of the property that extends to the property line; its removal will eliminate a nonconforming setback issue there and will provide more separation between the existing house and the adjacent property to the west. With the proposed removal of several other covered areas, the net result will be a reduction in the existing nonconforming lot coverage, from 36% to 33%.

(d) Impacts from the proposed variance will be mitigated to the extent practicable.

There are no real impacts from the proposed lot coverage variance, which is part of a proposal to remove other existing covered areas on the site. The concurrent removal of coverage will provide more space for potential landscaping and represents a net reduction in the existing nonconforming lot coverage (from 36% to 33%). The requested variance will facilitate the removal of an older attached carport on the west side of the property, which will provide more open space and separation between the existing house and the adjacent property to the west. No vegetation will be removed for the new carport, and the applicants have proposed

to plant three cherry trees on the interior side of the driveway near the new carport.

(e) The proposed variance would allow the development to preserve a priority tree or trees, or provide more opportunity to plant new trees to achieve 40% canopy, as required by Chapter 16.32.

As noted above, the proposed variance does not involve the removal of any existing vegetation and is in conjunction with a proposal to remove some existing covered areas, which will provide more space for potential landscaping. The applicants have also proposed to plant three cherry trees on the interior side of the driveway near the new carport.

As proposed, the Planning Commission finds that the requested variance for lot coverage meets the approval criteria established in MMC 19.911.4.A for Type II variances.

(2) MMC Subsection 19.911.4.B.1 Approval Criteria for Type III Variances--Discretionary Relief Criteria

(a) The applicant's alternatives analysis provides, at a minimum, an analysis of the impacts and benefits of the variance proposal as compared to the baseline code requirements.

<u>Rear yard setback</u> – The applicants are proposing to reduce the rear yard setback for the new carport from 20 ft to 5 ft. The subject property is a corner lot, with a driveway providing access to 25th Avenue that is located very near the rear property line. This makes the rear boundary function more like an interior-side line, which would require only a 5-ft setback if 25th Avenue was the property's actual front lot line. The proposed setback variance would also allow the northern edge of the new carport, which is proposed to be within 5 ft of the rear property line, to remain aligned with the northern edge of the 25th Avenue driveway.

<u>Roof pitch</u> – The proposed new carport is 13 ft tall and has a very low-slope roof (less than 2/12 pitch), well under the 4/12 pitch requirement for accessory structures over 10 ft in height. Given that the purpose of the carport includes storing a large recreational vehicle (RV), the building height would need to be increased to accommodate the RV and provide the minimum required roof pitch. Although accessory structures over 600 sq ft in area are allowed to be up to 25 ft in height, they are limited to the height of the primary structure (or 15 ft, regardless of primary structure height). The existing house is a single-story structure and has a similar style low-pitch roof; increasing the new carport height to achieve the minimum required roof slope would make the accessory structure taller than the existing house and greater than 15 ft in height.

The applicants have provided a sufficient analysis of impacts and benefits of the requested variances. This criterion is met.

(b) The proposed variance is determined to be both reasonable and appropriate, and it meets one or more of the following criteria:

- The proposed variance avoids or minimizes impacts to surrounding properties.
- The proposed variance has desirable public benefits.
- The proposed variance responds to the existing built or natural environment in a creative and sensitive manner.
- The proposed variance would allow the development to preserve a priority tree or trees, or provide more opportunity to plant new trees to achieve 40% canopy, as required by Chapter 16.32.

Rear yard setback – The requested setback variance is reasonable and appropriate because the subject property's driveway onto 25th Avenue makes the rear lot line function more like an interior side lot line, which would require a setback of only 5 ft. The 5-ft setback still provides some separation of the new carport from the adjacent property to the north, and it allows the carport to be aligned with the existing driveway, which is approximately 5 ft from the northern boundary. At this location, 25th Avenue is a short dead-end street with very little traffic, so the new carport and its location have very little impact.

Roof pitch – The proposed roof pitch variance allows the new carport to match the same low-slope style of roof that matches the mid-century modern style of the nearly flat roof of the existing house. The applicants' interest in maintaining a similar architectural style for the property is reasonable and appropriate, and there are no negative impacts from allowing the lower roof pitch.

The requested variances are reasonable and appropriate and meet one or more of the criteria provided in MMC Subsection 19.911.B.1.b. This criterion is met.

(c) Impacts from the proposed variance will be mitigated to the extent practicable.

Rear yard setback – The requested setback variance will not result in any impacts that require mitigation. The new carport will be 5 ft from the adjacent property to the north, which is appropriate for the interior-side-lot-line feel of the subject property's rear lot line. No conditions requiring specific mitigation are necessary.

Roof pitch – There are no impacts from the proposed roof pitch variance that require mitigation. The lower roof pitch will not impact neighboring properties and will not prevent the necessary management of stormwater runoff from the new roof.

The requested variances do not have any impacts that require mitigation. This criterion is met.

As proposed, the Planning Commission finds that the requested variances to the rear yard setback and roof pitch requirements for the new carport meet the approval criteria established in MMC 19.911.4.B.1 for Type III variances seeking discretionary relief.

The Planning Commission finds that the requested variances meet the approval criteria for Type II or Type III variances as applicable.

The Planning Commission finds that the requested variances are allowable as per the applicable standards of MMC 19.911.

7. The application was referred to the following departments and agencies on July 13, 2022:
   - Milwaukie Community Development Department
   - Milwaukie Engineering Department
   - Milwaukie Building Department
   - Milwaukie Code Compliance
   - City Attorney
   - Island Station Neighborhood District Association (NDA) Chairperson and Land Use Committee (LUC)
   - Clackamas Fire District #1 (CFD #1)
   - NW Natural

   The responses received are summarized as follows:
   - **Ashly Hoffman, member of Island Station NDA LUC:** Support for the requested variances.

ATTACHMENT 2
Recommended Conditions of Approval
File #VR-2022-005, Variances for Smith Carport

Conditions

1. As proposed, remove the existing covered areas described in the submittal materials—existing attached carport, barbeque deck, and patio. As discussed in Finding 4, these structures must be removed prior to a final inspection for the new detached carport.

Additional Requirements

The following items are not conditions of approval necessary to meet applicable land use review criteria. They relate to other development standards and permitting requirements contained in the Milwaukie Municipal Code and Public Works Standards that are required at various points in the development and permitting process.

1. Expiration of Approval

   As per MMC Subsection 19.1001.7.E, the land use approval granted with this decision will expire and become void unless the following criteria are satisfied. For proposals requiring any kind of development permit, the development must complete both of the following steps:

   a. Obtain and pay for all necessary development permits and start construction within two years of land use approval.

   b. Pass final inspection and/or obtain a certificate of occupancy within four years of land use approval.

2. Stormwater Management

   Submit a storm water management plan to the City of Milwaukie Engineering Department for review and approval. The plan must be prepared in accordance with Section 2 – Stormwater Design Standards of the City of Milwaukie Public Works Standards. Private properties may only connect to public storm systems if percolation tests show that infiltration cannot be obtained on site. In the event the storm management system contains underground injection control devices, submit proof of acceptance of the storm system design from the Department of Environmental Quality.

MILWAUKIE PLANNING
6101 SE Johnson Creek Blvd
Milwaukie OR 97206
503-786-7630
planning@milwaukieoregon.gov

Application for Land Use Action

Primary File #: VR-2022-005

Review type*: ☐ I ☐ II ☒ III ☐ IV ☐ V

CHECK ALL APPLICATION TYPES THAT APPLY:

- ☐ Amendment to Maps and/or
  - ☐ Comprehensive Plan Map Amendment
  - ☐ Zoning Text Amendment
  - ☐ Zoning Map Amendment
- ☐ Code Interpretation
- ☐ Community Service Use
- ☐ Conditional Use
- ☐ Development Review
- ☐ Director Determination
- ☐ Downtown Design Review
- ☐ Extension to Expiring Approval
- ☐ Historic Resource:
  - ☐ Alteration
  - ☐ Demolition
  - ☐ Status Designation
  - ☐ Status Deletion
- ☐ Land Division:
  - ☐ Partition
  - ☐ Property Line Adjustment
  - ☐ Replat
  - ☐ Subdivision
- ☐ Miscellaneous:
  - ☐ Barbed Wire Fencing
- ☐ Mixed Use Overlay Review
- ☐ Modification to Existing Approval
- ☐ Natural Resource Review**
- ☐ Nonconforming Use Alteration
- ☐ Parking:
  - ☐ Quantity Determination
  - ☐ Quantity Modification
  - ☐ Shared Parking
  - ☐ Structured Parking
- ☐ Planned Development
- ☐ Residential Dwelling:
  - ☐ Manufactured Dwelling Park
  - ☐ Temporary Dwelling Unit
- ☐ Transportation Facilities Review**
- ☒ Variance:
  - ☐ Use Exception
  - ☒ Variance
- ☐ Willamette Greenway Review
- ☐ Other: _____

Use separate application forms for:

- Annexation and/or Boundary Change
- Compensation for Reduction in Property Value (Measure 37)
- Daily Display Sign
- Appeal

RESPONSIBLE PARTIES:

APPLICANT (owner or other eligible applicant—see reverse): Kevin D. Smith

Mailing address: 2433 SE Dove Street Milwaukie State/Zip: OR 97222

Phone(s): 503-791-0123 cell Email: Kbuddydog@aol.com

Please note: The information submitted in this application may be subject to public records law.

APPLICANT'S REPRESENTATIVE (if different than above): Same As Above

Mailing address: N/A

Phone(s): N/A Email: N/A State/Zip: N/A

SITE INFORMATION:

Address: 2433 SE Dove Street Map & Tax Lot(s): 2S1E01BB06700

Comprehensive Plan Designation: LD Zoning: R-MD Size of property: 150x100

PROPOSAL (describe briefly): Application For Variances with regard to lot coverage and setbacks to allow For lot coverage and Setbacks.

SIGNATURE: I attest that I am the property owner or I am eligible to initiate this application per Milwaukie Municipal Code Subsection 19.1001.6.A. If required, I have attached written authorization to submit this application. To the best of my knowledge, the information provided within this application package is complete and accurate.

Submitted by: X [signature] Date: X 6/16/22

IMPORTANT INFORMATION ON REVERSE SIDE

*For multiple applications, this is based on the highest required review type. See MMC Subsection 19.1001.6.B.1.
** Natural Resource and Transportation Review applications **may require a refundable deposit.**

WHO IS ELIGIBLE TO SUBMIT A LAND USE APPLICATION (excerpted from MMC Subsection 19.1001.6.A):

Type I, II, III, and IV applications may be initiated by the property owner or contract purchaser of the subject property, any person authorized in writing to represent the property owner or contract purchaser, and any agency that has statutory rights of eminent domain for projects they have the authority to construct.

Type V applications may be initiated by any individual.

PREAPPLICATION CONFERENCE:

A preapplication conference may be required or desirable prior to submitting this application. Please discuss with Planning staff.

DEPOSITS:

Deposits require completion of a Deposit Authorization Form, found at www.milwaukieoregon.gov/building/deposit-authorization-form

REVIEW TYPES:

This application will be processed per the assigned review type, as described in the following sections of the Milwaukie Municipal Code:

- Type I: Section 19.1004
- Type II: Section 19.1005
- Type III: Section 19.1006
- Type IV: Section 19.1007
- Type V: Section 19.1008

THIS SECTION FOR OFFICE USE ONLY:

FILE TYPE	FILE NUMBER	AMOUNT (after discount, if any)	PERCENT DISCOUNT	DISCOUNT TYPE	DATE STAMP
Primary file	VR-2022-005	$ 2,000			RECEIVED
Concurrent application files		$			JUN 16 2022
		$			
		$			CITY OF MILWAUKIE COMMUNITY DEVELOPMENT
		$			
Deposit (NR/TFR only)				☐ Deposit Authorization Form received	
TOTAL AMOUNT RECEIVED: $ 2000.00		RECEIPT #: 23780		RCD BY: WILL	
Associated application file #s (appeals, modifications, previous approvals, etc.):					
Neighborhood District Association(s): ISLAND STATION					
Notes:					

MILWAUKIE PLANNING
6101 SE Johnson Creek Blvd
Milwaukie OR 97206
503-786-7630
planning@milwaukieoregon.gov

Submittal Requirements

For all Land Use Applications
(except Annexations and Development Review)

All land use applications must be accompanied by a signed copy of this form (see reverse for signature block) and the information listed below. The information submitted must be sufficiently detailed and specific to the proposal to allow for adequate review. Failure to submit this information may result in the application being deemed incomplete per the Milwaukie Municipal Code (MMC) and Oregon Revised Statutes.

Contact Milwaukie Planning staff at 503-786-7630 or planning@milwaukieoregon.gov for assistance with Milwaukie's land use application requirements.

1. **All required land use application forms and fees**, including any deposits.

   Applications without the required application forms and fees will not be accepted.

2. **Proof of ownership or eligibility to initiate application** per MMC Subsection 19.1001.6.A.

   Where written authorization is required, applications without written authorization will not be accepted.

3. **Detailed and comprehensive description** of all existing and proposed uses and structures, including a summary of all information contained in any site plans.

   Depending upon the development being proposed, the description may need to include both a written and graphic component such as elevation drawings, 3-D models, photo simulations, etc. Where subjective aspects of the height and mass of the proposed development will be evaluated at a public hearing, temporary onsite "story pole" installations, and photographic representations thereof, may be required at the time of application submittal or prior to the public hearing.

4. **Detailed statement** that demonstrates how the proposal meets the following:

   A. All applicable development standards (listed below):

      1. **Base zone standards** in Chapter 19.300.
      2. **Overlay zone standards** in Chapter 19.400.
      3. **Supplementary development regulations** in Chapter 19.500.
      4. **Off-street parking and loading standards and requirements** in Chapter 19.600.
      5. **Public facility standards and requirements**, including any required street improvements, in Chapter 19.700.

   B. All applicable application-specific approval criteria (check with staff).

   C. Compliance with the Tree Code (MMC 16.32): www.milwaukieoregon.gov/trees

   These standards can be found in the MMC, here: www.qcode.us/codes/milwaukie/

5. **Site plan(s), preliminary plat, or final plat** as appropriate.

   See Site Plan, Preliminary Plat, and Final Plat Requirements for guidance.

6. **Copy of valid preapplication conference report**, when a conference was required.

APPLICATION PREPARATION REQUIREMENTS:

- Electronic copies of all application materials are required at the time of submittal.

ADDITIONAL INFORMATION:

- Neighborhood District Associations (NDAs) and their associated Land Use Committees (LUCs) are important parts of Milwaukie's land use process. The City will provide a review copy of your application to the LUC for the subject property. They may contact you or you may wish to contact them. Applicants are strongly encouraged to present their proposal to all applicable NDAs prior to the submittal of a land use application and, where presented, to submit minutes from all such meetings. NDA information: www.milwaukieoregon.gov/citymanager/what-neighborhood-district-association.
- By submitting the application, the applicant agrees that City of Milwaukie employees, and appointed or elected City Officials, have authority to enter the project site for the purpose of inspecting project site conditions and gathering information related specifically to the project site.

As the authorized applicant I, (print name) _____, attest that all required application materials have been submitted in accordance with City of Milwaukie requirements. I understand that any omission of required items or lack of sufficient detail may constitute grounds for a determination that the application is incomplete per MMC Subsection 19.1003.3 and Oregon Revised Statutes 227.178. I understand that review of the application may be delayed if it is deemed incomplete.

Furthermore, I understand that, if the application triggers the City's sign-posting requirements, I will be required to post signs on the site for a specified period of time. I also understand that I will be required to provide the City with an affidavit of posting prior to issuance of any decision on this application.

Applicant Signature: X _____

Date: X 6/16/22

Official Use Only

Date Received (date stamp below):

RECEIVED
JUN 16 2022
CITY OF MILWAUKIE
PLANNING DEPARTMENT

Received by: WILL

MILWAUKIE PLANNING
6101 SE Johnson Creek Blvd
Milwaukie OR 97206
503.786.7600
planning@milwaukieoregon.gov

PREAPPLICATION CONFERENCE WAIVER

I/We, Kevin & Kristina Smith (print), as applicant(s)/property owner(s) of 2433 SE Dove St. (address of property), request to waive the requirement for a preapplication conference for the submission of a **Type II / III / IV / V** (circle one) land use application per MMC Subsection 19.1002.2 Applicability.

Please provide an explanation for the waiver request:
MMC Section 19.1002 Preapplication Conference is provided on the reverse

Planning staff has talked extensively with the applicants in an informal pre-app setting to give adequate guidance.

Signed: _____ Applicant/Property Owner

Approved: _____ Planning Director

Kristina Smith
503-791-0122 cell
503-791-0123 cell

19.1002 PREAPPLICATION CONFERENCE

19.1002.1 Purpose

The purpose of the preapplication conference is to acquaint the applicant or applicant's representative with the requirements of the municipal code in preparation for submission of a land use application, including relevant approval criteria, development standards, and procedures. The preapplication conference is not an exhaustive review of all potential issues or requirements. Furthermore, the information provided by the City is not binding, and it does not preclude the City from raising new issues or identifying additional requirements during the land use review process.

19.1002.2 Applicability

A. For Type I applications, a preapplication conference is optional.

B. For Type II, III, IV, and V applications, and expedited annexations per Section 19.1104, a preapplication conference is required, with the following exceptions:

   1. The Planning Director may waive the preapplication conference requirement for proposals that are not complex or, for some other reason, would not benefit from a formal conference.

   2. A preapplication conference is not required for City-initiated Type IV or V applications.

19.1002.3 Preapplication Conference Procedures

The Planning Director shall adopt administrative rules for how the City processes preapplication conferences. The rules shall ensure that preapplication conferences are held in a timely fashion and provide a thorough explanation of all required City permits, fees, and approvals for any given development proposal. They shall include standards for scheduling, conducting, and communicating the outcomes of preapplication conferences.

19.1002.4 Preapplication Conference Expiration

A. A preapplication conference is valid for 2 years. If a land use application or development permit has not been submitted within 2 years of the conference date, the applicant is required to schedule a new preapplication conference prior to submittal. This requirement may be waived per Subsection 19.1002.2.B.1.

B. An applicant may request additional preapplication conferences at any time. There is no limit to the number of preapplication conferences that may be requested.

C. If a development proposal is significantly modified after a preapplication conference occurs, the Planning Director may require a new preapplication conference. The City may refuse to accept a land use application or development permit for a significantly altered development proposal until a new preapplication conference is held.

2433 SE Dove Street Milwaukie Oregon 97222

06/07/2022

Kevin and Kristina Smith
Homeowners 2433 SE Dove Street
2433 SE Dove Street
Milwaukie, OR 97222

Overview

Owners: Kevin and Kristina Smith

2433 SE Dove Street

Milwaukie, Oregon 97222

Kbuddydgog@aol.com

503-791-0122 cell

Request:

1. Type II and Type III Variances from the City of Milwaukie allowing for exceptions as to lot coverage and rear yard setback for a proposed new carport.

Location:

2433 SE Dove Street, Milwaukie, Oregon 97222

Tax Lots:

2S1E01BB06700

Site Size:

150 ft x100 ft (15,000sqft) = .34 acres

Zoning:

R-MD (Moderate Density Residential)

Comprehensive Plan Designation:

MD (Moderate Density)

Summary:

The Applicant is proposing to Remove an existing (old) Carport (650 sq ft) as well as removing an existing outdoor kitchen BBQ deck area (approx. 726 sq ft, total of 1376 sq ft), and retain and permit (new) Carport (approx. 968 sqft) to accommodate our Motorhome and cars.

Existing Conditions:

Site Description:

The site is located on the corner of SE Dove Street and SE 25th Avenue, a corner lot in Milwaukie. Both 25th Avenue and Dove Street Provide Access to the property. The existing carport that is proposed to be removed is accessed on Dove Street. The New Carport is accessed from 25th Avenue; aside from the paved surface of 25th Avenue the Right of Way is otherwise unimproved and vegetated and remote (currently a dead-end street.). The new carport is set back 25 feet on the rv side and 45 feet on the car side from 25th Avenue and will be a set back 5 feet from the northern property line and the garage.

The site is currently developed with an approx. 2720-sq-ft single family home, with a detached Garage/Shop (approx. 1274 sq ft). The home is believed to have been built in the early 1950's as well as the shop; both were remodeled several times prior to our purchase in 2006.

The site is vegetated with grass, an herb garden, a vegetable garden, a flower garden, and several flower beds with various plants and mulch this makes up 5481 sqft of the property that is vegetation or approx 36%. There are no streams or groundwater present, and to the best of our knowledge the site is not located or mapped in any hazard or natural resource area.

The site consists of three tax lots that are 50 ft x100 ft (15,000 sq ft total)

The surrounding neighborhood is Developed with Single family homes and known as the "Island Station" neighborhood in the City of Milwaukie.

Some Background:

We contracted to purchase our home in 2005 and closed the transaction in February of 2006. The home is a Mid-Century Modern style built in the 1950's (Frank Lloyd Wright flare and design). When we purchased the property, the Fence was existing as well as the home, Shop/Garage, extra-large deck, very large swimming pool, and several other outbuildings and structures, both permanent and temporary. Since this time, we have reduced lot coverage and increased vegetation and continue to maintain the underdeveloped portion of 25th Avenue by keeping it mowed. Our hope simply is to obtain variances that will in turn allow us to obtain a permit for our new carport along 25th Avenue. We propose to remove our carport off Dove Street as well as the existing BBQ deck as part of this project.

Proposed Project:

The proposed project consists of removing the old carport, BBQ deck, and Patio to permit a newer carport. The project will remove 1376 sq ft of lot coverage and add 968 sq ft of lot coverage over an existing concrete driveway. We previously removed our large swimming pool and slate deck, reducing the lot coverage by 1600 sq ft. Thus, since we acquired the property, we have reduced the impervious surface on the lot and opened more space for landscaping.

Approval Criteria:

The approval criteria for a Type III variance are found in Section 19.911.4 of the Milwaukie Municipal Code (MMC). A Type III variance shall be approved when all of the criteria in

either MMC Subsection 19.911.4.B.1 or 2 have been met. For this proposal the applicant has chosen to meet the criteria of Subsection B-1 - Discretionary Relief Criteria as addressed below:

a. The applicant's alternatives analysis provides, at a minimum, an analysis of the impacts and benefits of the variance proposal as compared to the baseline code requirements.

   Response: Since the acquisition of our home in 2006, the lot coverage requirements have changed, most recently on June 3, 2022. The previous standard for maximum lot coverage was 35%; for lot over 7000 sq ft like ours, it is now 30%. Our new proposed lot coverage is approximately 33% and will remain at that figure once we remove the structures noted above and add the proposed new carport. The proposed variance will essentially preserve the status quo for lot coverage on our site.

   One benefit of granting the lot coverage variance is that it will facilitate the removal of the old carport off Dove Street, allowing for more separation from the home next door. Although the new carport will not meet the required 20-ft rear yard setback for an accessory structure of its size, it will be 5 ft from the rear lot line and so provides some separation from the neighboring property to the north. The reduced setback will also keep the new carport aligned with the existing driveway on 25th Avenue.

   The proposed variances will be of no impact to the surrounding neighborhood or adjacent properties, as the site is on a dead-end street and the carport is set back far from the rarely traveled roadway. No existing vegetation would be removed for the new carport, as it would be constructed over the existing driveway and parking area in that part of the site. Due to the property being a corner lot with a driveway accessing 25th Avenue, the rear lot line functions much like an interior side lot line, where a 5-ft setback is appropriate.

b. A proposed variance is determined by the planning Commission To be both reasonable and appropriate and it meets on of the following criteria:

(1) The proposed variance avoids or minimizes impacts to surrounding properties.
(2) The proposed variance has desirable public benefits.
(3) The proposed variance responds to the existing built or natural environment in a creative and sensitive manner.

Response: As described above, the proposed variances will have no significant impacts on the surrounding properties due to the following:

1. The carport is accessed from a dead-end underdeveloped street.
2. The carport sits back 45feet and 25 feet from the public right-of-way.
3. The carport helps provide a visual transition from the front flat of the shop to the main home's overhangs; it ties the two structures together visually.

The proposed Variance also responds to the existing built or natural environment in a creative and sensitive manner by providing cover for an RV and Vehicle(s) in an existing driveway, as well as improving a very box-like and plain-looking shop and making it match a mid-century modern home by showcasing large overhangs from this 1950s mid-century modern design.

The Proposed variances are reasonable and appropriate due to the fact that the site already has space to park and RV and this would allow it to be covered. In addition no vegetation would be removed for the project as there is an existing driveway/parking area that would simply be covered by the Carport. The 5-ft setback allows the carport to stay aligned with the driveway on 25th Ave, where a 20ft setback would push it so far South that the two would not be aligned and the Northern boundary functions more like a side property line than a rear one with the driveway onto 25th Ave. In summary, the new carport represents an overall reduction in lot coverage. Once the other structures are removed.

c. Impacts from the proposed variances will be mitigated to the extent practicable.

Response: Do to the fact we are removing lot coverage and this project upon conclusion has less coverage than currently exists on the site currently. . It will also increase the vegetation. The property is completely fenced and has been for many years. and sits on a

quiet untraveled roadway given that the project will have little impact and only improve the look of the property as the carport ties together the large overhangs on the existing home structure. We would be willing to plant 3 Cherry Blossom along the interior side of the drive.

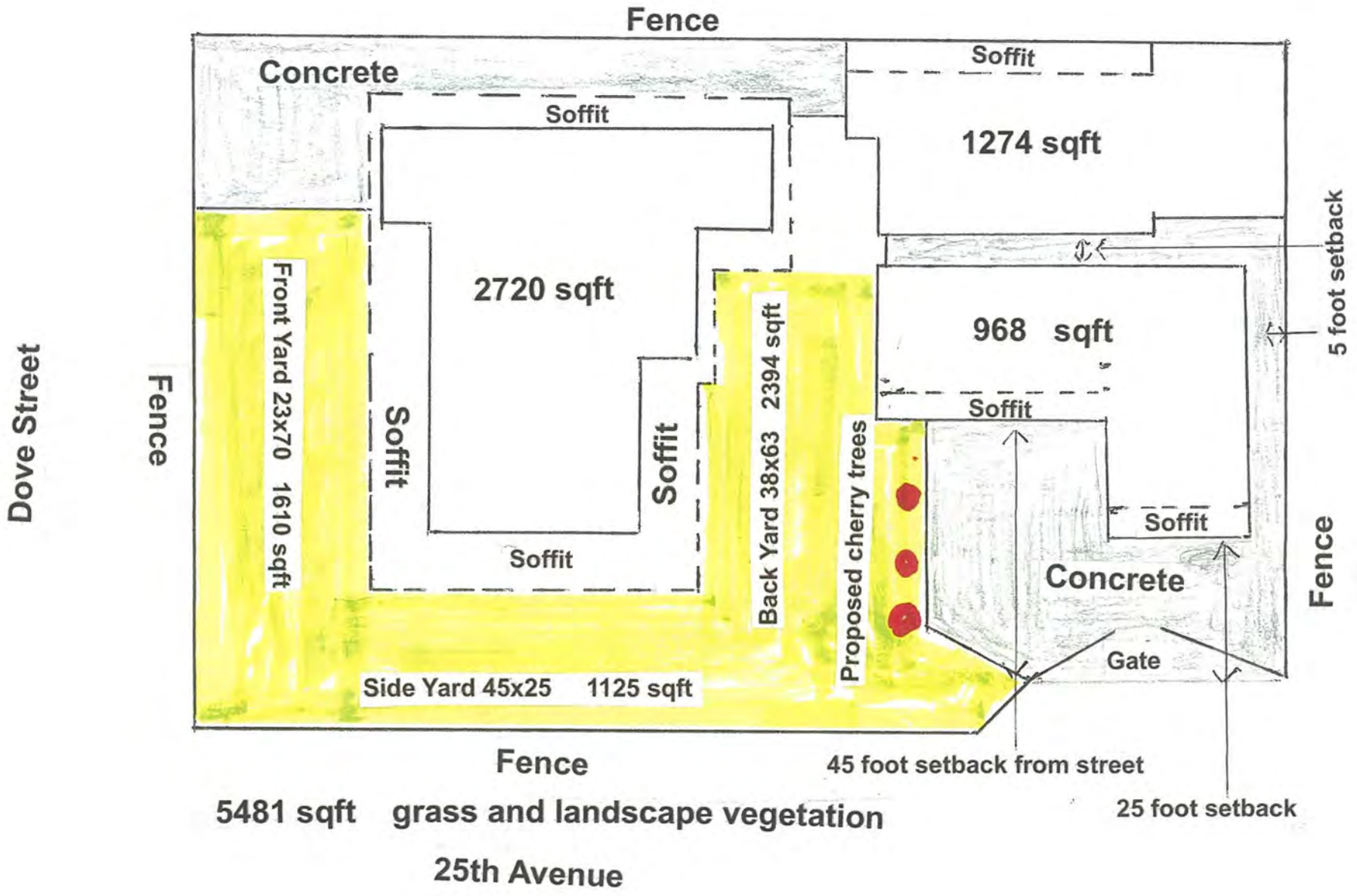
`In Closing:

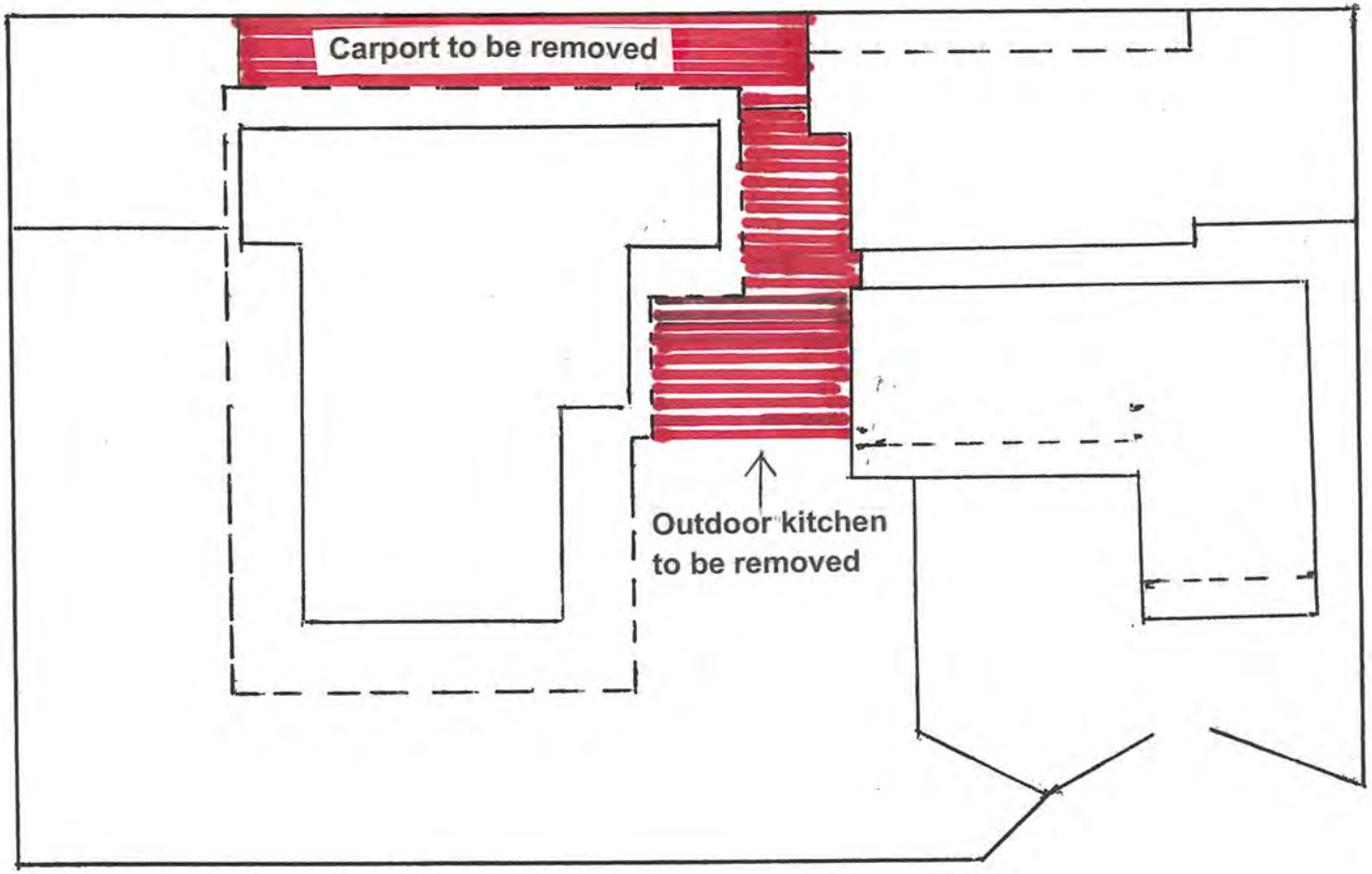
The proposed carport is designed to match the character of the home while addressing the challenges posed by the size. The proposed variance would result in no significant impacts on the surrounding neighborhood due to the fact that when we purchased the home the lot coverage was at 6900 sq ft. With the lot coverage variance, the benefits would be that the lot coverage would be 4962 sq ft, a large reduction of sqft since our purchase in 2006 the variances would make the home whole by tying the existing house and shop structures together, as the carport mimics the large overhangs of the home. The carport is located on an underdeveloped street without through access, Therefore it is tucked away from the surrounding neighborhood and sits far off the street. The variances should be approved.

2433 SE Dove Street Milwaukie Oregon 97222

	Allowed	Proposed
Maximum lot coverage	30%	33%
Minimum landscape	25%	36%
Setback for front (Dove St)		100 feet
Setback from other structures		5 feet
Structure Height		13 feet
Structure size carport	1500sqft	968sqft
Roof pitch for carport		3 inch drop in 20 feet
Siding type		T1-11 wood carport
Roof type		Metal carport roof
Siding / roof other structures		T1-11 and composite

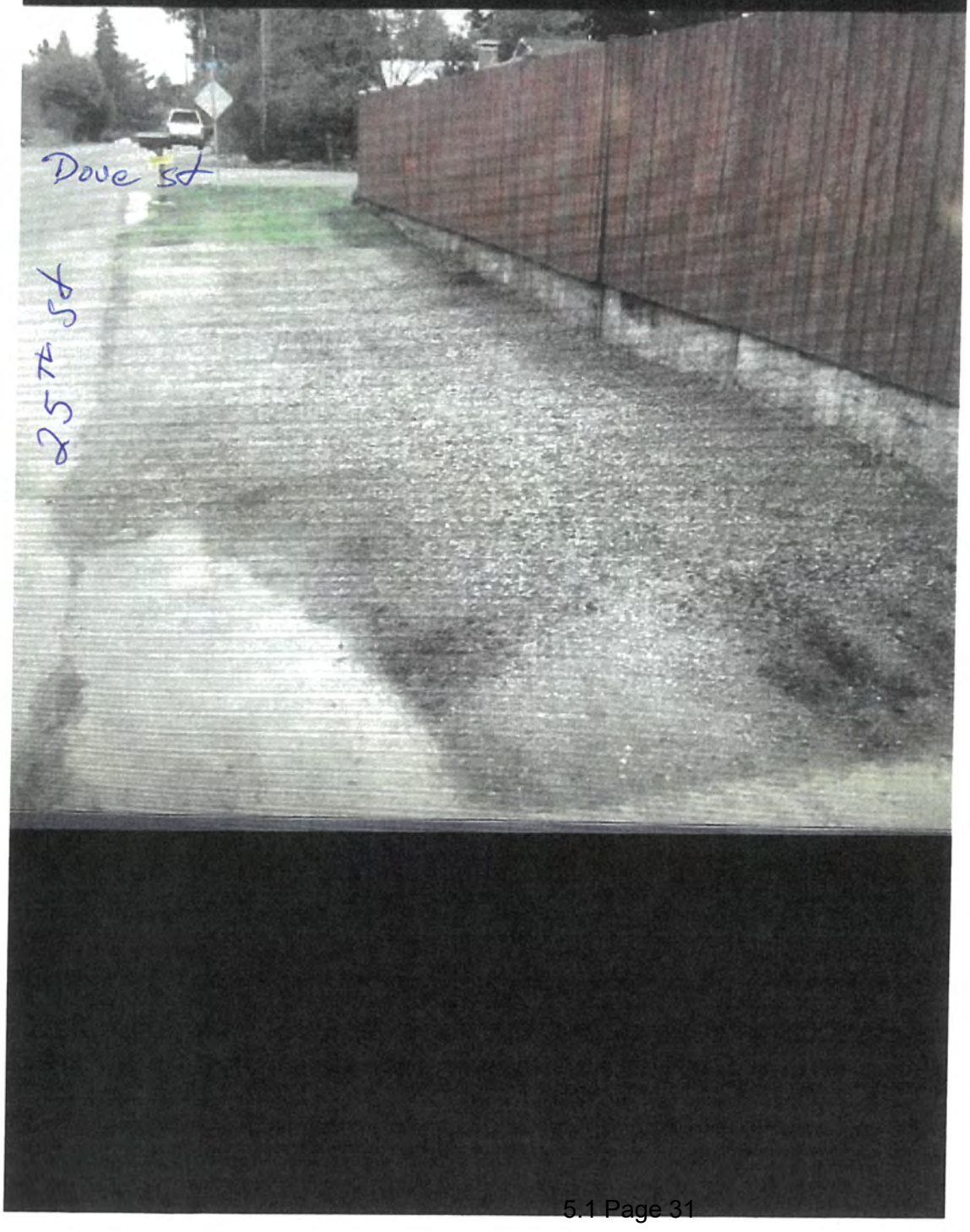
Total 4962 sqft




Carport to be removed
Outdoor kitchen
to be removed

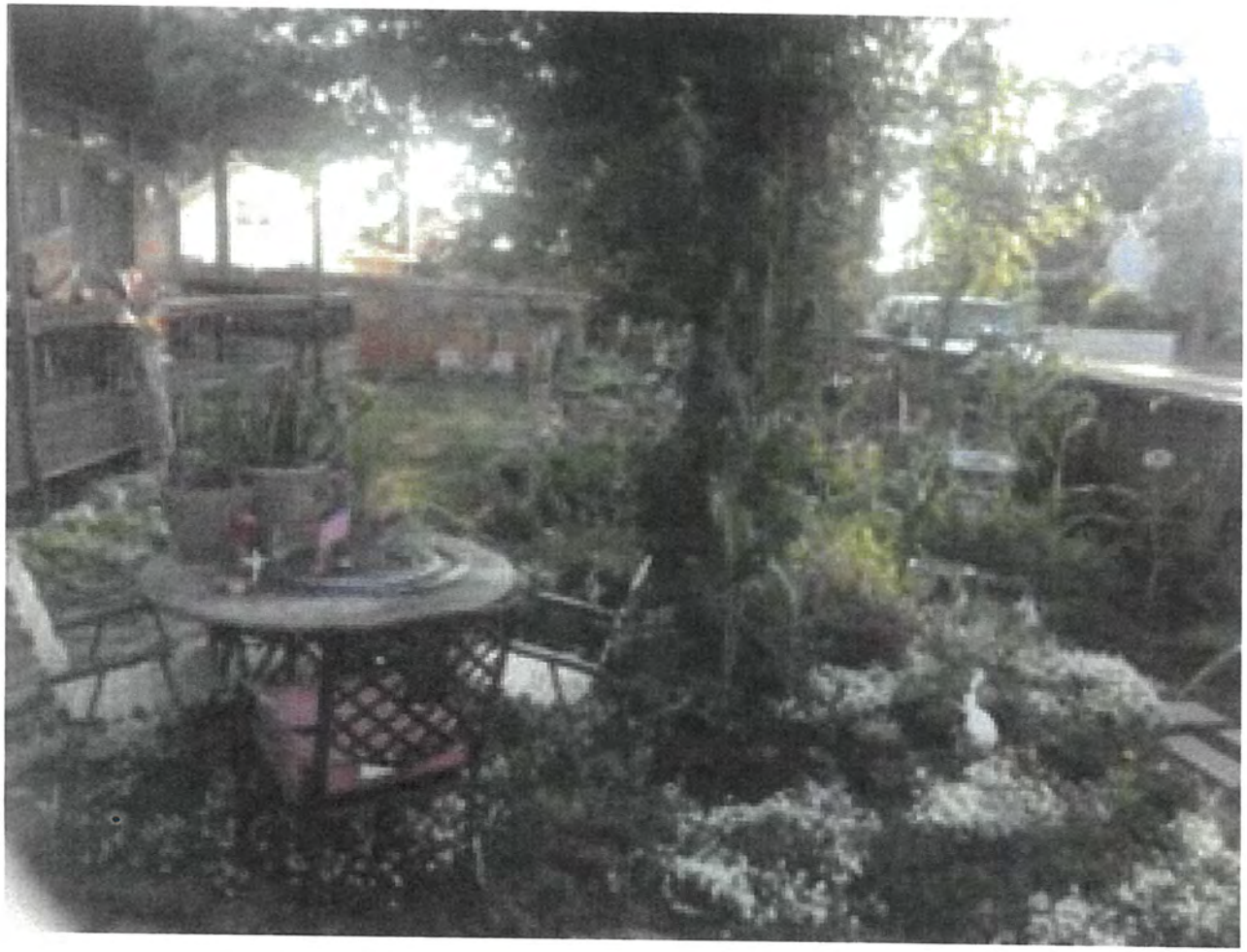
carport

looking south along 25th Ave frontage

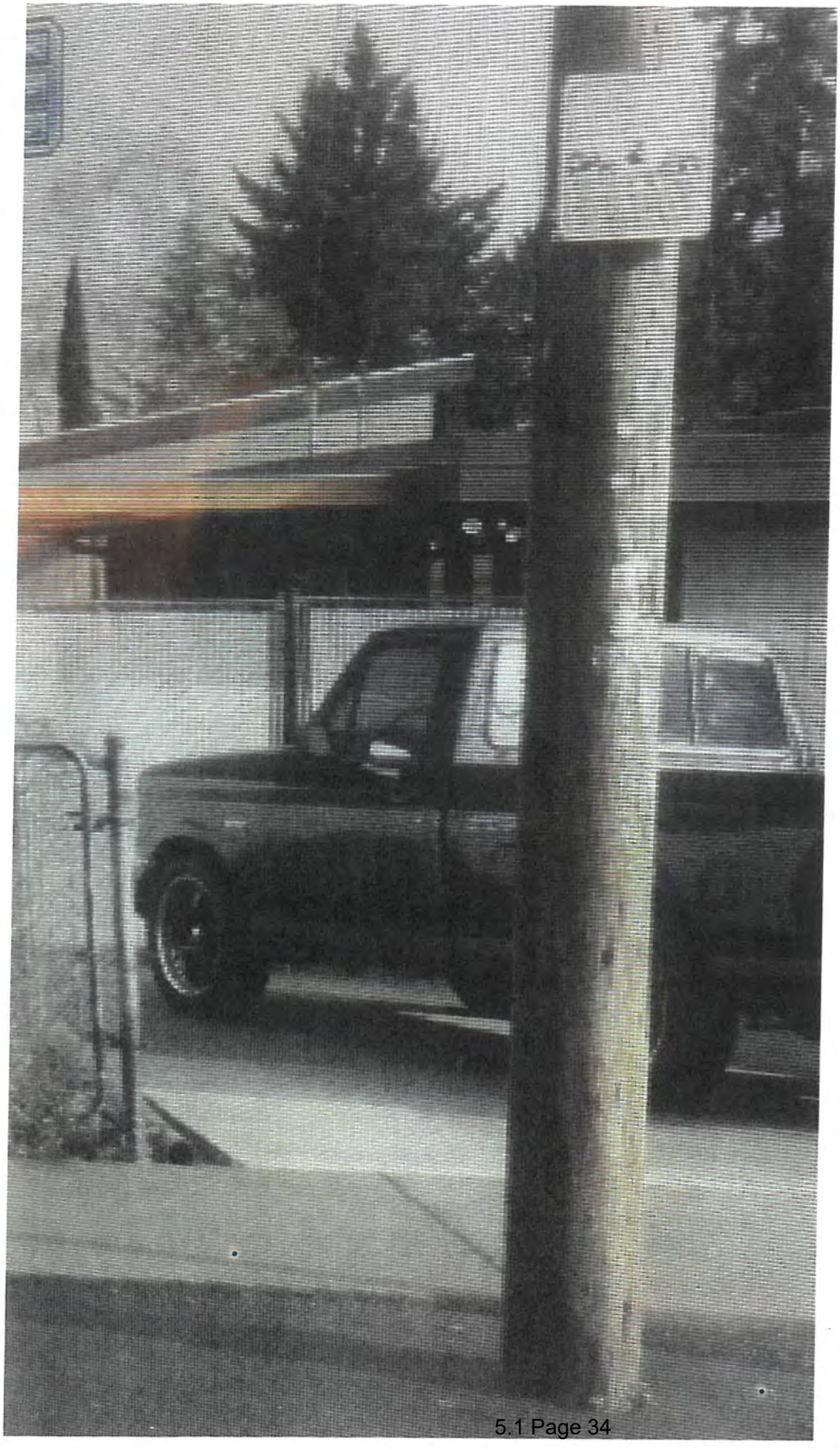


← 25 st

looking north along eastern property line (25th Ave side)



Front Yard



Carport on Dive st

Remove

outdoor kitchen area (to be removed)

Remove

outdoor kitchen area
(to be removed)

Remove

Brett Kelver

From: Ashly Hoffman <ashly.hoffman@gmail.com>
Sent: Friday, July 22, 2022 4:57 PM
To: Will First
Cc: Joseph Briglio; Steve Adams; Jennifer Backhaus; Laura Weigel; Samantha Vandagriff; Justin Gericke; shawn.olson@clackamasfire.com; charlesbird@juno.com; pamdenham@gmail.com; echaimov@comcast.net; garymic@gmail.com; paulrrasmussen@yahoo.com; Mike@iplexcorp.com; Jason Wachs; Tim Salyers; Jeremy.Lorence@nwnatural.com; Brett Kelver
Subject: Re: VR-2022-005 Notice of Type III Land Use Proposal and Referral

This Message originated outside your organization.

Hi Will, Thanks for sending this 🙂 The variance application was discussed at the last NDA meeting and on behalf of the island station land use committee, we'd like to support our neighbor's efforts to obtain the variance that they are seeking. Feel free to let me know if you have any questions and have a great weekend!
--Ashly

On Wed, Jul 13, 2022 at 10:24 AM Will First <firstw@milwaukieoregon.gov> wrote:

> Hello,
>
> Please access the link below to find the Notice of Type III Land Use Proposal and Application Referral for land use application VR-2022-005 for 2433 SE Dove St. If you have any questions, please feel free to contact Senior Planner Brett Kelver at 503-786-7657 or kelverb@milwaukieoregon.gov.
>
> https://www.milwaukieoregon.gov/planning/vr-2022-005
>
> Thank You.
>
> **Will First**
>
> Administrative Specialist II
>
> he • him • his
>
> **City of Milwaukie**
>
> p: 503.786.7603 | e: firstw@milwaukieoregon.gov
>
> 6101 SE Johnson Creek Blvd | Milwaukie, OR 97206

CITY OF MILWAUKIE

To: Planning Commission

Through: Laura Weigel, Planning Manager

From: Vera Kolias, Senior Planner

Date: August 17, 2022, for August 23, 2022, Public Hearing

Subject: **File:** NR-2022-001

Applicant/Owner: Heather Koch, North Clackamas Parks and Recreation District

Address: 11211 SE McLoughlin Blvd

Legal Description (Map & Tax Lot): 11E35AD 00900, 01000, and 01001; 11E35AA 02200, 02300, 02400, 02500, 02600, 02700, 02800, 04700, 04800, 04900, and 05000

NDA: Historic Milwaukie; Island Station

ACTION REQUESTED

Review the application materials for land use application primary file #NR-2022-001 and its associated applications and vote to approve the applications with the recommended Findings and Conditions of Approval found in Attachments 1 and 2. This action would allow for development of Phase 3 of Milwaukie Bay Park improvements.

BACKGROUND INFORMATION

The proposed development is Phase 3 of the improvements to Milwaukie Bay Park. The proposed Phase 3 park improvements build on previous site improvements and include a nature-themed children's play area; a gathering/event area with an open lawn, stage and fire pit for special events; a nature-themed interactive water feature; new pathways; picnic areas; a restroom structure and shade structure; improvements to the existing Trolley Trail; public art; vegetation plantings and new stormwater management infrastructure.

The proposed Phase 3 park improvements addressed in this application are located within an approximately 3.5-acre portion of the park. Parts of the existing and new permanent alignment of the Trolley Trail that is part of the park are also located outside of these parcels on four (4) segments of right-of-way along McLoughlin Blvd.

Figure 1. Development Plan (Image taken from ncprd.com)

Figure 2. Interactive water feature (Image taken from ncprd.com)

A. Site and Vicinity

The subject property is located between the Willamette River and McLoughlin Blvd to the west of the downtown area.

The park is bordered by open space and residential property to the north and northwest, the Kellogg Water Resource Recovery Facility to the south, McLoughlin Blvd/OR 99E to

the east, and commercial properties in the Downtown Mixed Use (DMU) zone to the east beyond McLoughlin Blvd.

Figure 3. Project Area and Vicinity

The site is located in the Historic Milwaukie neighborhood and adjacent to the Island Station neighborhood in the western portion of the city.

B. Zoning Designation

The entire park site and project area are zoned as Open Space (OS) and are within the Willamette Greenway (WG) overlay zone. Portions of the park and project area are also designated as Water Quality Resource (WQR) area and Habitat Conservation Area (HCA).

(see Figure 4)

Figure 4. Zoning designation

C. Comprehensive Plan Designation

Public (P)

D. Land Use History

As summarized in the application materials, the City adopted a plan for the park in 2010 to serve as the foundation for agencies, community partners, and local citizens to participate in shaping park improvements over the years (land use file #s DR-009-001, TPR-009-003, VR-009-003, WQR-009-001 and WG-009-001; WG-2017-003)). Many elements of the plan have been designed and constructed over the past 12 years, including:

- the Klein Point Overlook at the Johnson Creek confluence with the Willamette River;
- a new boat launch and dock;
- auto and boat trailer parking;
- a single restroom facility;
- a temporary Trolley Trail connection;
- a riverside path;
- riverbank stabilization and plantings;
- an improved access bridge over Kellogg Creek; and
- riverbank erosion repairs with new pedestrian beach access.

E. Proposal

The applicant is seeking land use approval to construct and/or install Phase 3 improvements to Milwaukie Bay Park. As noted above, these improvements include: a nature-themed children's play area; a gathering/event area with an open lawn, stage and fire pit for special events; a nature-themed interactive water feature; new pathways; picnic areas; a restroom structure and shade structure; improvements to the existing Trolley Trail; public art; vegetation plantings and new stormwater management infrastructure.

The project requires approval of the following applications:

1. Natural Resources Review – the proposal involves work in both the WQR and HCA; the application materials include a natural resources report
2. Willamette Greenway Review – the proposal is development in the Willamette Greenway Overlay
3. Conditional Use Review – required for review of a Willamette Greenway Review
4. Downtown Design Review – the proposal includes the construction of a new restroom buildings
5. Variance – the proposal includes a request to allow the construction of pathways that are not made of pervious pavement

Figure 5. Amphitheater (Image taken from ncprd.com)

The application materials include a full set of 100% design development plans. Please refer to Attachment 4.c for complete details on utilities, materials, furnishing schedule, grading, irrigation, lighting, plantings, and structural plans for walls, railings, and the restroom.

KEY QUESTIONS

Summary

Staff has identified the following key questions for the Planning Commission's deliberation. Aspects of the proposal not listed below are addressed in the Findings (see Attachment 1) and generally require less analysis and discretion by the Commission.

A. Have the project's impacts on mapped natural resources been evaluated? Does the proposed development adequately address impacts to mapped natural resources to avoid, minimize, and mitigate?

B. Does the project design adequately address the approval criteria for review of a development in the Willamette Greenway?

C. Is the variance request to allow impervious pavement for the pathways appropriate and reasonable? Does the request meet the approval criteria for a Type III variance?

Analysis

A. Have the project's impacts on mapped natural resources been evaluated? Does the proposed development adequately address impacts to mapped natural resources to avoid, minimize, and mitigate?

MMC 19.402 provides a discretionary process to analyze the impacts of development on WQRs and HCAs, including measures to prevent negative impacts and requirements for mitigation and enhancement. The approval criteria for evaluating a development's impacts require that a development demonstrate how the proposed activity:

- Avoids the intrusion of development into resource areas to the extent practicable;
- Minimizes detrimental impacts if there is no practicable alternative to avoiding disturbance; and
- Mitigates for adverse impacts if the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the designated natural resources.

The application materials include a natural resources report (see Attachment 4.d), which provides a detailed analysis of the proposed development, its impacts on both the WQR and HCA on the site, and proposed mitigation measures.

As described in the report, the functional vegetated corridor along the Willamette River contains native trees, shrubs, and groundcover and provides some wildlife habitat and water quality benefit, and is limited to the portions of the site below the existing Riverside Path, which meanders through the park in a generally north-south direction above the top of the bank. Vegetation within the WQR/HCA above and east of the Riverside Path consists mainly of open lawn.

Other than not building the project, there are no practicable alternatives that could entirely avoid impacts to the WQR or HCA. The proposed park improvements meet a need and City direction specific to Milwaukie Bay Park; other sites without WQR or HCA are not an

option. Mapped HCA extends well into the site's interior, and impacts could not be avoided even if all project elements were moved even farther away from the river than proposed. WQR boundaries are closer to the river but still extend far enough into the site that the WQR encompasses previously permitted and constructed park elements (paths) that the proposed project elements need to connect and integrate with.

Table 1. Summary of impacts and mitigation

Resource	Total area within project limits	Existing disturbance	Proposed temporary disturbance[1]	Proposed permanent disturbance[2]	Proposed mitigation	Total Plantings
WQR	33,758 sq ft	7,066 sq ft	25,136 sq ft	6,808 sq ft	10,200 sq ft[3]	165 trees 511 shrubs
HCA	44,163 sq ft	2,462 sq ft	34,492 sq ft	9,671 sq ft	14,500 sq ft[4]	

The proposed design limits WQR/HCA impacts to the extent practicable while still meeting the key community objectives for the park.

The available space in the park is constrained by the Willamette River to the west and McLoughlin Blvd to the east. The proposed design reflects an effort to move as much of the heavily programmed areas (playground, water feature, plaza, and restroom) away from the river and to the highest portion of the site practicable, to limit both WQR/HCA impacts and floodplain impacts. Public comments received during the outreach process also expressed a strong preference to keep elements such as the water feature and playground away from McLoughlin Blvd along the site's eastern perimeter as much as possible.

The proposed design balances site constraints and public concerns, while retaining the key park elements envisioned in the 2010 master plan and program. Further limiting impacts to WQR and HCA would likely mean eliminating programmed elements from the park.

The functional vegetated riparian corridor in Milwaukie Bay Park is located below the existing riverside paths, with areas above the paths consisting of maintained park landscaping (primarily open lawn), with sidewalk and parking lot in the WQR in the southern portion of the project area. The project design avoids and minimizes impacts to ecological functions by not introducing new development to the functional vegetated

[1] Due to construction; proposed to be revegetated following construction completion to better than existing condition
[2] Due to structures and/or pavement
[3] Planting area is 1.5 times the size of the permanently impacted area; see Sheet L6.00B for details; native plantings, plant/seed all bare areas to 100% coverage, inventory and remove all debris and noxious materials
[4] Planting area 1.5 times the size of the permanently impacted area; see Sheets L6.01 – L6.04 for detailed planting schedule

corridor below the existing paths. All project elements will be at or above the level of the existing paths along the river and to the Klein Point Overlook.

The project as designed requires no in-water work or removal of trees or shrubs in the functional riparian corridor below the existing paths. Tree protection measures will be installed prior to ground disturbing activities to ensure trees are not inadvertently impacted. Erosion and sediment control measures will be implemented to minimize temporary impacts to the Willamette River and Johnson Creek during construction.

Temporary WQR/HCA disturbance areas will be restored to conditions better than the existing condition, and mitigation plantings are proposed in designated areas to compensate for permanent impacts within WQR area and HCA.

As detailed in the natural resources report and summarized in Table 1 above, the proposal meets or exceeds the requirements of MMC 19.402.11 – 12 resulting in a project that restores the mapped resource area and/or mitigates temporary and permanent disturbances while meeting the identified goals for a regional park along the Willamette River. Please refer to the Findings in Attachment 1 for a comprehensive review of all applicable standards and criteria established in MMC 19.402.

B. Does the project design adequately address the approval criteria for review of a development in the Willamette Greenway?

Approval of a project in the Willamette Greenway (WG) is a conditional use, subject to the provisions of MMC 19.905. The conditional use approval criteria are found in MMC 19.905.4. The key criteria that apply to this project and that must be addressed by the application are:

- Are the characteristics of the lot suitable for the proposed use considering size, shape, location, topography, existing improvements, and natural features?
- Will the operating and physical characteristics of the proposed use be reasonably compatible with, and have minimal impact on, nearby uses?
- Will all identified impacts be mitigated to the extent practicable?

The purpose of the WG is to protect, conserve, enhance, and maintain the natural, scenic, historic, economic, and recreational qualities of lands along the Willamette River and major courses flowing into the Willamette River. The subject property is entirely within the Willamette Greenway. The WG section (MMC 19.401) of the code functions as an overlay zone and is combined with the base zone. MMC 19.401.6 includes a list of criteria that are to be taken into account in the consideration of a greenway conditional use:

- Compatibility with the scenic, natural, historic, economic, and recreational character of the river;
- Protection of views both toward and away from the river;

- Landscaping, aesthetic enhancement, open space, and vegetation between the activity and the river, to the maximum extent practicable;
- Public access to and along the river, to the greatest possible degree, by appropriate legal means;
- Emphasis on water-oriented and recreational uses;
- Maintain or increase views between the Willamette River and downtown;
- Protection of the natural environment according to regulations in Section 19.402;
- Conformance to applicable Comprehensive Plan policies;
- The request is consistent with applicable plans and programs of the Division of State Lands;
- A vegetation buffer plan.

The existing property is the location of Milwaukie Bay Park and its size and shape are suitable to accommodate the additional features proposed through this work. The location of the park is central to Downtown Milwaukie, accessible throughout the region, and serves as a convenient location for community gatherings. Work was recently completed on the southern portion of the site to add a boat launch and parking area; the improvements proposed through this work were designed to integrate into existing improvements at the site. The site is situated along the Willamette River and between Johnson Creek to the north and Kellogg Creek to the south. Improvements proposed through this proposal were designed to accentuate the natural features of the site and make them more accessible to the community.

The proposed project and continued use of Milwaukie Bay Park are consistent with Milwaukie's Downtown and Riverfront Land Use Framework Plan (last updated 2015), which is an ancillary document to the Comprehensive Plan (updated 2020). As stated in the Comprehensive Plan (page 76), "A fundamental concept of the Framework Plan is creating stronger connections between downtown Milwaukie to the riverfront and enhancements to Milwaukie Bay Park." The proposed project is consistent with goals and policies of the of the Comprehensive Plan, including the overarching goal of the Parks and Recreation (Chapter 9) section, which is to: "Enhance natural areas and provide for the recreational needs of present and future city residents of all ages and abilities with an emphasis on underserved communities."

Regarding the specific requirements when reviewing an application for development in the Willamette Greenway, the proposal meets or exceeds the requirements (See Attachment 1 for detailed findings):

- The proposed improvements will enhance features at Milwaukie Bay Park and will be compatible with the scenic, natural, historic, economic, and recreational

character of the river. Proposed site additions will provide individuals with amenities to use while enjoying the scenery and natural resources of the site. Additionally, the proposed additions will enhance connections between the river and downtown Milwaukie. The site additions will enhance recreational opportunities at the site.

- The proposed work at the project site will protect views toward and away from the river. The proposed project involves construction of one building (restroom under 11 feet in height) in addition to other features which will have minimal impacts on views. Other site features, including landscape plantings and walkways, have been designed to accentuate and frame views from the site, in consideration of vegetation maturing over time.
- The proposed project includes extensive landscaping and planting to promote tree canopy coverage and vegetation diversity at the site while preserving recreational function and framing views of the river. Proposed development has been sited away from the river to the extent practicable, accommodating the programmed park amenities while balancing natural resource protections along the river with public concerns about active uses (e.g., playground) adjacent to McLoughlin Blvd. The project avoids disturbance to the existing vegetated buffer of trees, shrubs, and groundcover along the river below the existing riverside paths.
- The proposed project includes a series of walkways that will extend throughout the park, providing users with access to the proposed site features and integrating with existing site development, including existing access to the river from the riverside path. The project includes connections between the existing riverside paths and the Trolley Trail.
- Existing views between the Willamette River and downtown will be maintained with this project. The aboveground features, including the restroom structure will result in negligible impacts to views between the Willamette River and downtown. Proposed landscaping at the site has been designed to accentuate and frame views, highlighting the natural features of the Willamette River and its surrounding areas.

Based on the criteria for both the WG and for conditional uses, the subject property is appropriate for the proposed development, and its design takes into account the necessary considerations for development in the Willamette Greenway Zone.

C. Does the variance request to allow impervious pavement for the pathways meet the approval criteria for Type III variances?

The applicant is seeking relief from the requirement established in Milwaukie Municipal Code (MMC) Subsection 19.504.9.E that on-site walkways be permeable for stormwater. As proposed, the granting of the requested variance would allow the applicant to construct the entire network of walkways on the subject property (except for the Trolley Trail) with impervious pavement instead of pervious material.

Pervious asphalt is proposed for the Trolley Trail portion of the project, since it is located in an area where infiltration rates were found to be high and suitable for pervious pavement. Impervious pavement draining to a vegetated surface facility (grassy swale) for filtration is proposed for the other walkways on the site.

The application materials provide the following justification for the request to use impervious pavement for the pathways:

- The site has generally poor infiltration rates that are not conducive to infiltration-type stormwater facilities.
- Vegetated facilities provide treatment performance similar to permeable pavement in suitable conditions as well as the following additional benefits:
    - The grassy swale will provide an additional "green" aesthetic and an additional functional barrier to geese.
    - Vegetated stormwater facilities improve or maintain infiltration capacity over time because of root growth.
    - Microbial communities associated with root systems provide soil microbe diversity and help fix atmospheric carbon and nitrogen, and are known to break down pollutants including hydrocarbons.
    - Typical concrete is more durable than permeable concrete, particularly as it relates to shear strength.
    - Permeable concrete requires effective maintenance over time to perform as expected.

The stormwater report confirms that stormwater runoff from the proposed impervious concrete walkways would be captured and treated on-site through surface vegetated filtration facilities. The applicant argues that typical impervious concrete is durable and stable and is less prone to weather-related damage and/or other degradation than pervious pavement.

Staff agrees that allowing the smaller on-site paths to be impervious is a reasonable request and recommends approval of the variance request.

CONCLUSIONS

A. Staff recommendation to the Planning Commission is as follows:

1. Approve the Natural Resource, Willamette Greenway, and Downtown Design reviews, and the requested variance for the proposed Phase 3 improvements at Milwaukie Bay Park. This will result in the construction and installation of numerous elements, including pathways, a playground and a water feature, landscaping, water quality facilities, and a new restroom at Milwaukie Bay Park.
2. Adopt the attached Findings and Conditions of Approval.

CODE AUTHORITY AND DECISION-MAKING PROCESS

The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC).

- MMC 19.304: Downtown zones including OS
- MMC 19.401: Willamette Greenway
- MMC 19.402: Natural Resources
- MMC 19.504: Site Design
- MMC 19.508: Downtown Building and Site Design Standards
- MMC 19.600: Parking
- MMC 19.700: Public Facility Improvements
- MMC 19.911: Variances
- MMC 19.1006 Type III Review
- MMC 18: Flood Hazard Regulations
- MMC 12: Streets, Sidewalks, and Public Places

This application is subject to Type III review, which requires the Planning Commission to consider whether the applicant has demonstrated compliance with the code sections shown above. In Type III reviews, the Commission assesses the application against review criteria and development standards and evaluates testimony and evidence received at the public hearing.

The Commission has 4 decision-making options as follows:

A. Approve the application upon finding that all approval criteria have been met subject to the recommended Findings of Approval.

B. Approve the application with modified Findings of Approval. Such modifications need to be read into the record.

C. Deny the application upon finding that it does not meet approval criteria.

D. Continue the hearing.

The final decision on these applications, which includes any appeals to the City Council, must be made by November 3, 2022, in accordance with the Oregon Revised Statutes and the Milwaukie Zoning Ordinance. The applicant can waive the time period in which the application must be decided.

COMMENTS

Notice of the proposed modifications was given to the following agencies and persons: City of Milwaukie Building, Engineering, and Public Works Departments; Historic Milwaukie and Island Station Neighborhood District Association Chairperson & Land Use Committee; Clackamas Fire District #1 (CFD#1); Metro; Clackamas County; Oregon Department of Transportation; North Willamette Watershed District, Oregon Department of Fish and Wildlife; Oregon Division of State Lands Wetlands and Waterways; Oregon Parks and Recreation; Clackamas Park and Recreation District; Oregon Department of Land Conservation and Development; and properties within 300 ft of the site.

Review comments were received by Seth Brumley, Oregon Department of Transportation which summarized a number of items required for ODOT review and approval (see Attachment 5).

ATTACHMENTS

Attachments are provided as indicated by the checked boxes. All material is available for viewing upon request.

	Early Web Posting	Packet
1. Recommended Findings in Support of Approval	☐	☒
2. Recommended Conditions of Approval	☐	☒
3. Recommended Other Requirements	☐	☒
4. Applicant's Narrative and Supporting Documentation (received July 6, 2022)		
a. Application forms and Narrative	☒	☒
b. Development plan set	☒	☒
c. Natural Resources Report	☒	☒
d. Stormwater Report	☒	☒
5. Comments received	☐	☒

Key:
Early Web Posting = Materials posted to the land-use application webpage at the time of public notice 20 days prior to the hearing.
Packet = packet materials available online at https://www.milwaukieoregon.gov/bc-pc/planning-commission-102.

ATTACHMENT 1
Recommended Findings in Support of Approval
Primary File #NR-2022-001, Phase 3 Improvements – Milwaukie Bay Park

Sections of the Milwaukie Municipal Code not addressed in these findings are found to be inapplicable to the decision on this application.

1. The applicant, Heather Koch representing the North Clackamas Parks and Recreation District, has applied for approval for Phase 3 improvements for Milwaukie Bay Park at 11211 SE McLoughlin Blvd. This site is in the Downtown Open Space Zone (OS). The primary land use application file number is NR-2022-001.

2. The applicant seeks approval for Phase 3 park improvements that build on previous site improvements and include: a nature-themed children's play area; a gathering/event area with an open lawn, stage and fire pit for special events; a nature-themed interactive water feature; new pathways; picnic areas; a restroom structure and shade structure; improvements to the existing Trolley Trail; public art; vegetation plantings and new stormwater management infrastructure. A variance is requested to the requirement for pervious pavement for onsite walkways.

3. The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC):

    - MMC 12: Streets, Sidewalks, and Public Places
    - MMC 18: Flood Hazard Regulations
    - MMC 19.304: Downtown zones including OS
    - MMC 19.401: Willamette Greenway
    - MMC 19.402: Natural Resources
    - MMC 19.504: Site Design
    - MMC 19.508: Downtown Building and Site Design Standards
    - MMC 19.600: Parking
    - MMC 19.700: Public Facility Improvements
    - MMC 19.911: Variances
    - MMC 19.1006 Type III Review
    - MMC 19.1006 Type III Review

4. The application has been processed and public notice provided in accordance with MMC Section 19.1006 Type III Review. A public hearing was held on August 23, 2022 as required by law.

5. MMC Title 12 Streets, Sidewalks, and Public Places

    a. MMC Chapter 12.08 – Street & Sidewalk Excavations, Construction, and Repair

(1) This will apply to all construction that is completed in the right of way including, but not limited to, all public utilities, construction of the on-site path, and any other pedestrian/bicycle facilities. The public improvement process will follow MMC 12.08.020.

(2) The Trolley Trail multi-use path must be constructed of pervious pavement. Other new sidewalks/paths may be constructed of impervious pavement provided water quality facilities are provided to treat the runoff.

b. MMC Chapter 12.16.040 – Access Requirements and Standards

MMC 12.16.040 establishes standards for access (driveway) requirements.

(1) MMC 12.16.040.A – Access

MMC 12.16.040.A requires that all properties be provided street access with the use of an accessway.

The proposed development has existing access to McLoughlin Blvd. No changes are proposed to the accessways as part of this development.

This standard is met.

c. MMC Chapter 12.24 – Clear Vision at Intersections

MMC 12.24 establishes standards to maintain clear vision areas at intersections to protect the safety and welfare of the public in their use of city streets.

The existing driveway approaches must conform to the clear vision requirements.

As conditioned, this standard is met.

6. MMC Title 18 Flood Hazard Regulations

MMC Title 18 provides standards intended to minimize public and private losses due to flood conditions in specific areas. The regulations established in MMC Title 18 do this in part by controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters; controlling filling, grading, dredging, and other development which may increase flood damage; and preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. As per MMC Section 18.16.030, a floodplain development permit is required prior to any construction or development within the flood management area.

The subject property includes flood hazard and flood management areas as identified on the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA) and acknowledged by the City for the purposes of implementing MMC Title 18.

MMC Chapter 18.16 establishes provisions for the administration of the regulations.

a. MMC Section 18.16.020 Duties and Responsibilities of the Floodplain Administrator (including the requirement for an elevation certificate).

An elevation certificate will be required for the proposed restroom structure.

b. MMC Section 18.16.030 Establishment of Floodplain Development Permit

MMC 18.16.030 requires that a floodplain development permit must be obtained through application on forms furnished by the city engineer before construction or development begins within any area horizontally within the regulatory floodplain established in Section 18.12.020.A. The floodplain development permit is required for all structures, including manufactured dwellings, and for all other development, as defined in Chapter 18.08, including fill and other development activities.

According to the submittal materials, the proposed action at Milwaukie Bay Park occurs within the established regulatory floodplain. An application for a Floodplain Development Permit will be submitted to the City for the project.

This standard is met.

c. MMC Section 18.20.010 Alteration of Watercourses

MMC 18.20.010 establishes requirements for Floodways. A No-Rise Analysis must be submitted for all manmade development in the floodway. MMC 18.20.010 requires that the flood-carrying capacity within the altered or relocated portions of watercourses must be maintained. This includes the floodway, which is the channel of a watercourse and the adjacent land areas that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Encroachments within floodways, including fill and new construction, are prohibited unless they are part of an approved fish enhancement project or unless a certified professional civil engineer provides a hydrologic and hydraulic (H&H) analysis demonstrating that the encroachment will not increase flood levels during a base flood event.

The United States Army Corps of Engineers operates a hydraulic model for the Lower Willamette River which shows the area of Milwaukie Bay Park as an ineffective flow area. This classification means that the hydraulic model assumes the area of Milwaukie Bay Park is only flood storage without any flood conveyance. City maps identify floodway on the subject property. Based on the results of this hydraulic model and the net cut affiliated with the proposed project, development at this site would result in a no-rise condition. A No-Rise Analysis will be required with the application for a Floodplain Development Permit.

This standard is met.

d. MMC Section 18.20.020 Compensatory Storage (Balanced Cut and Fill)

MMC 18.20.020 establishes requirements for compensatory storage, also referred to as "balanced cut and fill." Where the placement of fill or structures will displace more than ten (10) cubic yards of flood storage area, the development must be done in such a way as to maintain or increase flood storage and conveyance capacity and not increase design flood elevations. All fill placed at or below the design flood elevation must be balanced by at least an equal volume of material ("cut") in a hydraulically

equivalent location, not including areas that will be filled with water in two-year rainstorm conditions or are designated for Habitat Conservation Area (HCA) mitigation.

Excavation to balance a fill must be located on the same parcel as the fill unless it is not reasonable or practicable to do so.

The majority of the project site falls within the 1996 Flood Inundation Area. A cut and fill analysis completed by the project civil engineer, based on the site grading plan, indicated that the project will result in a net cut of approximately 200 cubic yards of material in areas below the 36-foot base flood elevation. This analysis will be documented in the application for a Floodplain Development Permit.

These standards are met.

The Planning Commission finds that the proposed development is consistent with the applicable standards of MMC Title 18.

7. MMC 19.304 Downtown Zones (including OS)

   a. As stated in MMC 19.304.1, the Open Space Zone provides a specific zone to accommodate open space, park, and riverfront uses. The Open Space Zone is generally applied to lands that are in public ownership along the Willamette River, Kellogg Creek, Spring Creek, and Johnson Creek in the downtown area. The desired character for the Open Space Zone includes parkland, open space, and riverfront amenities.

      The proposed Phase 3 improvements to Milwaukie Bay Park are consistent with the parks and open space category descriptions and examples and are a permitted use under MMC 19.304.2.

   b. Table 19.304.4 establishes standards for development in the OS zone.

Table 19.301.4
Residential Zone R-5 Development Standards

Standard	Required	Proposed	Staff Comment
Building Height	15 ft max.	*11 ft*	*Complies with standard.*
Off-street parking required	Yes, where applicable	*No additional parking proposed*	*Non-residential uses exempt from off-street parking requirements.*

MMC Subsection 19.304.5.H establishes the standards for open space when a building is set back from the sidewalk. At least 50% of the setback area shall provide usable open space, such as a public plaza or pedestrian amenities, that meets the standards of this subsection.

The restroom building will be set back from the McLoughlin Blvd sidewalk but will abut an on-site pedestrian access path, and the building will be surrounded by usable open space. This standard is met.

The Planning Commission finds that this standard would be met.

8. MMC 19.400 Overlay Zones and Special Areas

   a. MMC 19.401 Willamette Greenway Overlay Zone

      MMC 19.401 establishes criteria for reviewing and approving development in the Willamette Greenway.

      (1) MMC Subsection 19.401.5 Procedures

         MMC 19.401.5 establishes procedures related to proposed uses and activities in the Willamette Greenway zone. Development in the Willamette Greenway zone requires conditional use review, subject to the standards of MMC Section 19.905 and in accordance with the approval criteria established in MMC Subsection 19.401.6.

         The construction of new parking improvements, including a playground, picnic area, and a restroom building constitutes "development" as defined in MMC Subsection 19.401.4 and is subject to the conditional use review standards of MMC 19.905 and the approval criteria of MMC 19.401.6.

      (2) MMC Subsection 19.401.6 Criteria

         MMC 19.401.6 establishes the criteria for approving conditional uses in the Willamette Greenway zone.

         (a) Whether the land to be developed has been committed to an urban use, as defined under the State Willamette River Greenway Plan

            The State Willamette River Greenway Plan defines "lands committed to urban use" in part as "those lands upon which the economic, developmental and locational factors have, when considered together, made the use of the property for other than urban purposes inappropriate."

            An urban use is described in the Willamette River Greenway Plan as a use that is part of the built environment, as opposed to uses along a river that are natural, rural, or agricultural in nature. The project area is part of Milwaukie's downtown zone, and the proposed park improvements are on land established as a park - Milwaukie Bay Park. The park use is an urban use in the downtown area along the Willamette River that is committed to urban use.

         (b) Compatibility with the scenic, natural, historic, economic, and recreational character of the river

            The proposed improvements will enhance features at Milwaukie Bay Park and will be compatible with the scenic, natural, historic, economic, and recreational character of the river. Proposed site improvements will provide park users with amenities to use while enjoying the scenery and natural resources of the site. Additionally, the proposed additions will enhance connections between the river

and downtown Milwaukie. The site improvements will enhance recreational opportunities at the site.

(c) Protection of views both toward and away from the river

The proposed work at the project site will protect views toward and away from the river. The proposed project involves construction of one building (restroom under 11 feet in height) in addition to other features which will have minimal impacts on views. Additionally, other site features, including landscape plantings and walkways, have been designed to accentuate and frame views from the site, in consideration of vegetation maturing over time.

(d) Landscaping, aesthetic enhancement, open space, and vegetation between the activity and the river, to the maximum extent practicable

The proposed project includes extensive landscaping and planting to promote tree canopy coverage and vegetation diversity at the site while preserving recreational function and framing views of the river. Proposed development has been sited away from the river to the extent practicable, accommodating the programmed park amenities while balancing natural resource protections along the river with public concerns about active uses (e.g., playground) adjacent to McLoughlin Blvd. The project avoids disturbance to the existing vegetated buffer of trees, shrubs, and groundcover along the river below the existing riverside paths.

(e) Public access to and along the river, to the greatest possible degree, by appropriate legal means

The proposed project includes a series of walkways that will extend throughout the park, providing users with access to the proposed site features and integrating with existing site development, including existing access to the river from the riverside path. The project includes connections between the existing riverside paths and the Trolley Trail. The project also proposes realigning, widening, and paving (with permeable pavement) a portion of the Trolley Trail extending through Milwaukie Bay Park, providing access from communities north and south along the six-mile trail and beyond. All proposed walkways will meet relevant design and accessibility requirements.

(f) Emphasis on water-oriented and recreational uses

The project contains numerous proposed improvements to enhance recreational uses. These include a playground, interactive water feature (splash pad), fire pit, bicycle parking, walking and biking paths, picnic areas, open space, and a restroom. Additionally, the project is designed to frame and accentuate views of the river, and it retains existing access to the Willamette River from the riverside trail via the stone steps constructed as part of a 2018 project. No limitations to or modifications of the boat ramp constructed in 2015 are included in this project, protecting a popular access point that creates a strong water/recreation orientation on site today.

(g) Maintain or increase views between the Willamette River and downtown

Existing views between the Willamette River and downtown will be maintained with this project. The aboveground features, including the restroom structure which is the only building proposed and is under 11 feet tall, will result in negligible impacts to views between the Willamette River and downtown. Proposed landscaping at the site has been designed to accentuate and frame views, highlighting the natural features of the Willamette River and its surrounding areas. The proposed landscaping, which includes tree plantings, has been planned thoughtfully to frame views as vegetation matures.

(h) Protection of the natural environment according to regulations in Section 19.402

As identified in Finding 8-b, as conditioned, the application meets the applicable approval criteria for development and disturbance in mapped natural resource areas.

(i) Advice and recommendations of the Design and Landmarks Committee, as appropriate

Per MMC 19.907.8, the proposed development does not require Type III downtown design review and does not trigger review by the Design and Landmarks Committee.

(j) Conformance to applicable Comprehensive Plan policies

The Willamette Greenway Element in the Milwaukie Comprehensive Plan includes policies related to land use, public access and view protection, and maintenance of private property. These policies include the requirement of a conditional use permit for new development and intensification of existing uses, evaluation of development impacts to visual corridors, and limitations on authorizing the unrestricted public use of private land.

The Natural Hazards Element includes policies that prohibit development in known areas of natural disasters and hazards without appropriate safeguards. The Open Spaces, Scenic Areas, and Natural Resources Element includes policies to conserve open space and protect and enhance natural and scenic resources.

The proposed development is being reviewed through the Willamette Greenway conditional use process as provided in MMC Subsection 19.401.5. As described in Finding 9 the proposed project is consistent with Milwaukie's Downtown and Riverfront Land Use Framework Plan (last updated 2015). It is also consistent with other goals and policies of the of the Comprehensive Plan, including the overarching goal of the Parks and Recreation (Chapter 9) section and the policies of the Willamette Greenway chapter of the Plan (Chapter 4), including those related

to natural resource protections, recreation, public access and view protection, and connections with downtown.

(k) The request is consistent with applicable plans and programs of the Division of State Lands

The proposed activity is not inconsistent with any known plans or programs of the Department of State Lands (DSL). The proposed project does not involve work below the ordinary high water (OHW) level of the Willamette River or within adjacent wetlands subject to Oregon Department of State Lands (DSL) permitting requirements under the Oregon Removal-Fill Law or state-owned aquatic lands leasing/registration programs.

(l) A vegetation buffer plan meeting the conditions of Subsections 19.401.8.A through C

A buffer strip of native vegetation was established along the river as part of earlier phases of development within Milwaukie Bay Park. Prior work has included shoreline grading, bank stabilization, and native plantings/vegetation enhancement below the existing riverside path. The proposed Phase 3 improvements will observe this buffer and will preserve the vegetation within it through impact avoidance. No native vegetation removal within the buffer is proposed with this project.

The proposed project does not involve removal of vegetation or alteration of natural site characteristics within the vegetated buffer. The project recognizes the buffer established during previous phases of park development and intentionally avoids impacting that area. The proposed project will not place additional restrictions on ordinary pruning or vegetation maintenance.

The Planning Commission finds that, as conditioned, the proposed activity meets all relevant approval criteria provided in MMC 19.401.6.

The Planning Commission finds that the proposed activity meets all applicable standards of development activity in the Willamette Greenway zone.

b. MMC 19.402 Natural Resources

MMC 19.402 establishes regulations for designated natural resource areas. The standards and requirements of MMC 19.402 are an acknowledgment that many of the riparian, wildlife, and wetland resources in the community have been adversely impacted by development over time. The regulations are intended to minimize additional negative impacts and to restore and improve natural resources where possible.

(1) MMC Subsection 19.402.3 Applicability

MMC 19.402.3 establishes applicability of the Natural Resource (NR) regulations, including all properties containing Water Quality Resources

(WQRs) and Habitat Conservation Areas (HCAs) as shown on the City's Natural Resource (NR) Administrative Map.

The project site is adjacent to the Willamette River. The City's NR Administrative Map shows WQR and HCA designations on the majority of site and portions of these natural resource areas will be disturbed by the proposed development.

As presented in the applicant's submittal materials, the proposed development will temporarily or permanently disturb approximately 76,197 sq ft of WQR and/or HCA area. At that scale, the proposed activity is not listed as exempt according to the standards outlined in MMC 19.402.4.

The Planning Commission finds that the requirements of MMC 19.402 are applicable to the proposed activity.

(2) MMC Subsection 19.402.8 Activities Requiring Type III Review

MMC 19.402.8 establishes that certain activities within a designated WQR and/or HCA are subject to Type III review in accordance with MMC 19.1006. As per MMC 19.402.8.A.1, this includes activities allowed in the base zone that are not otherwise exempt or permitted as a Type I or II activity.

The level of disturbance proposed within the designated WQR and HCA areas on the subject property exceeds the levels allowed by Type I and II review, as provided in MMC 19.402.6 and 402.7, respectively. As such, the activity is subject to Type III review and the discretionary process established in MMC 19.402.12. The Natural Resource review is associated with other applications being processed concurrently with Type III.

The Planning Commission finds that the proposed activity is subject to Type III review.

(3) MMC Subsection 19.402.9 Construction Management Plans

MMC 19.402.9 establishes standards for construction management plans, which are required for projects that disturb more than 150 sq ft of designated natural resource area. Construction management plans must provide information related to site access, staging of materials and equipment, and measures for tree protection and erosion control.

The applicant's Natural Resource Review report states that a construction management plan will be submitted for review at the time of submittal for development permits.

(4) MMC Subsection 19.402.11 Development Standards

MMC 19.402.11 establishes development standards for projects that impact a designated natural resource, including requirements to protect natural resource areas during development and general standards for required mitigation (e.g., plant species, size, spacing, and diversity).

MMC Subsection 19.402.11.D establishes mitigation requirements for disturbance within HCAs. Because the proposed development will not result in the removal of any trees, and the few trees on the site are on the margins, the applicant proposes to calculate

required mitigation via Option 2. Mitigation Option 2 calculates required mitigation based on the size of the disturbance area and assigns required trees and shrubs based on this area.

Table 1. Summary of impacts and mitigation

Resource	Total area within project limits	Existing disturbance	Proposed temporary disturbance[1]	Proposed permanent disturbance[2]	Proposed mitigation	Total Plantings
WQR	33,758 sq ft	7,066 sq ft	25,136 sq ft	6,808 sq ft	10,200 sq ft[3]	165 trees 511 shrubs
HCA	44,163 sq ft	2,462 sq ft	34,492 sq ft	9,671 sq ft	14,500 sq ft[4]	

Using the mitigation planting ratio provided in MMC Subsection 19.402.11.D.2.b as a guide, for the total permanent WQR and HCA disturbance of approximately 16,479 sq ft, the applicant proposes to plant 165 native trees and 511 native shrubs. The mitigation areas total approximately 24,700 sq ft which is 1.5 times the size of the permanently impacted area. Temporary WQR/HCA disturbance areas will be restored to conditions better than the existing condition, and mitigation plantings are proposed in designated areas to compensate for permanent impacts within WQR area and HCA.

As proposed, the mitigation plantings will exceed the minimum requirements established in MMC Subsection 19.402.11.B. Mitigation trees will be of at least ½-in caliper (measured at 6 ft above the ground level after planting) and shrubs will be of at least 1-gallon size and at least 12-in height. A full planting list was submitted identifying the proposed mix of species.

As detailed in the natural resources report and summarized in Table 1 above, the proposal meets or exceeds the requirements of MMC 19.402.11 – 12 resulting in a project that restores the mapped resource area and/or mitigates temporary and permanent disturbances while meeting the identified goals for a regional park along the Willamette River.

[1] Due to construction; proposed to be revegetated following construction completion to better than existing condition
[2] Due to structures and/or pavement
[3] Planting area is 1.5 times the size of the permanently impacted area; see Sheet L6.00B for details; native plantings, plant/seed all bare areas to 100% coverage, inventory and remove all debris and noxious materials
[4] Planting area 1.5 times the size of the permanently impacted area; see Sheets L6.01 – L6.04 for detailed planting schedule

As conditioned, the Planning Commission finds that the applicable development standards of MMC 19.402.11 are met.

(5) MMC Subsection 19.402.12 General Discretionary Review

MMC 19.402.12 establishes the discretionary review process for activities that substantially disturb designated natural resource areas.

(a) Impact Evaluation and Analysis

MMC Subsection 19.402.12.A requires an impact evaluation and alternatives analysis in order to determine compliance with the approval criteria for discretionary review and to evaluate alternatives to the proposed development. A technical report prepared by a qualified natural resource professional is required and should include the following components:

(i) Identification of ecological functions

Vegetated Corridors to Separate Protected Water Feature from Development

The vegetated corridor along the Willamette River and Johnson Creek on the western portion of the site separates those water bodies from the existing park development, and from SE McLoughlin Blvd. and downtown Milwaukie to the east. The functional vegetated corridor, which contains native trees, shrubs, and groundcover and provides some wildlife habitat and water quality benefit, is limited to the portions of the site below the existing Riverside Path, which meanders through the park in a generally north-south direction above the top of the bank. Vegetation within the WQR/HCA above and east of the Riverside Path consists mainly of lawn.

Microclimate and Shade

The shoreline in the project area has a narrow band of riparian vegetation (~35' to 50' wide for most of its length) with intermittent large-tree canopy coverage and smaller trees and shrubs throughout. The vegetated corridor in the northern part of the project area – north of the stone access steps that were constructed in 2018 – has larger trees and more substantial canopy coverage than the corridor in the southern part of the site, which has riparian vegetation that was planted more recently as part of previous phases of park development. Larger trees along the Willamette River at the site are primarily black cottonwood, with bigleaf maple at the northern end of the site above Johnson Creek. The trees and native shrubs provide some shading and microclimate temperature regulation in a narrow band along the water. Those functions are lacking in WQR and HCA areas uphill of the Riverside Path.

Streamflow Moderation and Water Storage

The shoreline vegetation along the Willamette River through the project area provides some bank roughness for attenuating high-flow velocities. Moderate bank slopes for portions of the shoreline accommodate some water storage function during high flows, with water levels maintained below the Riverside Path during ordinary high-water flows. Much of the site within and outside of WQR and HCA is within the 100-year floodplain.

Water Filtration, Infiltration, and Natural Purification

The vegetated shoreline below the Riverside Path provides some opportunity for water filtration, infiltration, and natural purification for overland runoff from uphill portions of the park, which currently consist primarily of lawn and pedestrian paths. A stormwater treatment basin collects and treats runoff from the adjacent vehicle parking lot in the southern portion of the project area, discharging flows to the Willamette River within the vegetated corridor.

Large Wood Recruitment and Retention and Natural Channel Dynamics

The larger trees along the shoreline in the project area are a potential large wood source, and the project reach of shoreline has moderate potential for large wood recruitment from upstream sources. The shoreline along the park has received bank stabilization treatments during previous phases of park development that have included boulders, log crib walls, and plantings intended to discourage bank erosion, channel migration, and impacts to park development.

Organic Material Sources

The trees, shrubs, and herbaceous vegetation in the narrow riparian band along the river and creek below the Riverside Path provide a source of organic material to those streams.

(ii) Inventory of vegetation

The applicant's submittal materials include a technical report prepared by ESA, a private firm providing a range of environmental consulting services including natural resource assessment, wetland delineation, and environmental restoration. The technical report includes an impact evaluation and alternatives analysis, as well as an inventory of existing vegetation. The natural resource documentation concludes that there are two main vegetation community types at the site that can generally be described as: (1) a riparian plant community that extends from the water up the bank to the existing Riverside Path and the Klein Point Overlook path, and (2) maintained park lawn on the uphill side of the paths.

The riparian plan community is described as being Class B – Marginal. Species composition and tree canopy coverage varies by location through the riparian zone, but the overall WQR condition in the riparian zone below the existing park riverside paths is most appropriately classified as Class B (Marginal), based on the combination of trees, shrubs, and groundcover having at least 80% coverage throughout the zone, with 25-50% canopy coverage. While high canopy (large tree) coverage is less than 25% on parts of the shoreline, particularly in the southern portion where recent park development and shoreline bank stabilization/planting work has occurred, small (low canopy) native trees are present and will grow over time.

The park lawn area is described as being Class C – Poor. The dominant plant community within the portion of the WQR on the uphill side of the riverside paths is maintained lawn with no trees or shrubs. The groundcover plant species in this community are dominated by lawn grass (Poa sp.), with species including narrow-leaf plantain (Plantago lanceolate), common daisy (Bellis perennis), common dandelion (Tanacetum vulgare), clover (Trifolium repens), and Hairy cat's ear (Hypochaeris radicata) also present.

(iii) Assessment of water quality impacts

The proposed project is unlikely to cause the addition of any parameters to DEQ's 303(d) list for the Willamette River or Johnson Creek.

The project's potential for water quality impacts includes the short-term increased potential for erosion and sediment transport during construction as a result of ground disturbance. Erosion and sediment control measures will be implemented during construction to manage those concerns, as required by City regulations and the NPDES Construction Stormwater Permit from DEQ that will be obtained for disturbance in excess of 1 acre. The proposed site revegetation plans will stabilize the site after construction, and long-term issues with erosion and sediment are not expected after construction with the proposed stormwater management.

Stormwater runoff from approximately 0.66 of new impervious surfaces introduced by the project will be managed and treated for water quality through a combination of a new vegetated swale, use of an existing on-site stormwater basin (for the parking lot and SW portion of the proposed work area), and use of pervious pavement for the Trolley Trail to infiltrate runoff on-site. The new impervious surfaces are predominantly non-pollution generating impervious surface (e.g., pedestrian paths and non-vehicular park features), and the project does not introduce operational changes that would substantially increase the risk of pollutant discharges to the river or creek (i.e., the site remains a park with no introduction of hazardous material storage or point source discharges). The stormwater management is being

designed to meet requirements of the City and the City of Portland's Stormwater Management Manual.

(iv) Alternatives analysis

The application states that there are no practicable alternatives to the requested development that will entirely avoid impacts to the WQR or HCA. The proposed park improvements meet a need and City planning direction specific to Milwaukie Bay Park; other sites without WQR or HCA are not an option. Mapped HCA extends well into the site's interior, and impacts could not be avoided even if all project elements were moved even farther away from the river than proposed. WQR boundaries are closer to the river but still extend far enough into the site that the WQR encompasses previously permitted and constructed park elements (paths) that the proposed project elements need to connect and integrate with.

(i) The development in the WQR and HCA has been limited to the area necessary to allow for the proposed use.

The proposed project revisits and advances park improvements envisioned in the 2010 Milwaukie Riverfront Park Master Plan and Program (e.g., amphitheater, play area, restroom, water feature) and incorporates comments received on desired park elements through an extensive community engagement process completed in 2018-2019. The proposed design limits WQR/HCA impacts to the extent practicable while still meeting the key community objectives for the park.

The available space in the park is constrained by the Willamette River to the west and McLoughlin Blvd. to the east. The proposed design reflects an effort to move as much of the heavily programmed areas (playground, water feature, plaza, and restroom) away from the river and to the highest portion of the site practicable, to limit both WQR/HCA impacts and floodplain impacts. Public comments received during the outreach process also expressed a strong preference to keep elements such as the water feature and playground away from SE McLoughlin Blvd along the site's eastern perimeter as much as possible.

The proposed design balances site constraints and public concerns, while retaining the key park elements envisioned in the 2010 master plan and program. Further limiting impacts to WQR and HCA would likely mean eliminating programmed elements from the park.

(ii) If disturbed, the WQR can be restored to an equal or better condition in accordance with Table 19.402.11.C; and the HCA

can be restored consistent with the mitigation requirements of Subsection 19.402.11.D.2.

As demonstrated in these Findings, the WQR and HCA disturbances will be mitigated based on the WQR requirements in Table 19.402.11.C and HCA standards in 19.402.11.D.2.

(v) Demonstration that no practicable alternative method or design exists that would have a lesser impact on the resource and that impacts are mitigated to the extent practicable

As identified above, the Planning Commission finds that the applicant's impact evaluation and alternatives analysis is sufficient for purposes of reviewing the proposed activity against the approval criteria provided in MMC 19.402.12. This standard is met.

(vi) Mitigation plan

The applicant's submittal materials include a mitigation plan for permanent and temporary impacts to the WQR and HCA.

The project will involve temporary construction activity and permanent project elements within WQR areas and HCA. Approximately 25,136 square feet (0.58 acre) of WQR and 34,492 square feet (0.79 acre) of HCA will be temporarily disturbed and revegetated as part of the construction. Approximately 6,808 square feet of WQR (0.16 acre) and 9,671 square feet (0.22 acre) of HCA will be permanently disturbed by park structures or pavements, for a total combined WQR/HCA impact of about 16,479 square feet (0.38 acre).

(i) An explanation of measures that will be taken to avoid, minimize, and/or mitigate adverse impacts to the designated natural resource; in accordance with, but not limited to, Table 19.402.11.C for WQRs and Subsection 19.402.11.D.2 for HCAs.

As described in the natural resources report, the functional vegetated riparian corridor in Milwaukie Bay Park is located below the existing riverside paths, with areas above the paths consisting of maintained park landscaping (primarily open lawn), with sidewalk and parking lot in the WQR in the southern portion of the project area. The project design avoids and minimizes impacts to ecological functions by not introducing new development to the functional vegetated corridor below the existing paths. All project elements will be at or above the level of the existing paths along the river and to the Klein Point Overlook.

The project as designed requires no in-water work or removal of trees or shrubs in the functional riparian corridor below the existing paths. Tree protection measures will be installed prior to ground disturbing activities to ensure trees are not inadvertently impacted. Erosion and sediment control measures will be implemented to minimize temporary impacts to the Willamette River and Johnson Creek during construction.

Temporary WQR/HCA disturbance areas will be restored to conditions better than the existing condition, and mitigation plantings are proposed in designated areas to compensate for permanent impacts within WQR area and HCA, as shown on the submitted plans.

The plant schedules included in the plan set identify mitigation trees and shrubs needed to meet the HCA mitigation standards of 19.402.11.D.2 (Mitigation Option 2), which requires planting native trees and shrubs at a rate of 5 trees and 25 shrubs per 500 sq. ft. of HCA disturbance area, which for this project requires 97 trees and 484 shrubs for the 9,671 sq. ft. of permanent HCA impact. The proposed HCA mitigation plantings will cover an area of approximately 14,500 sq. ft., or approximately 1.5 times the HCA permanent impact area and will meet HCA mitigation planting standards for size, spacing, and diversity as outlined in 19.402.11.B.

A separate WQR mitigation area is shown on Sheet L6.00B to address the permanent impacts to 6,808 sq. ft. of WQR impact. WQR mitigation is intended to address the requirements of Table 19.402.11.C, which for Class C (Poor) condition WQR requires mitigation to:

- *Restore and mitigate disturbed areas with native species from the Milwaukie Native Plant List, using a City-approved plan developed to represent the vegetative composition that would naturally occur on the site.*
- *Plant and/or seed all bare areas to provide 100% surface coverage.*
- *Inventory and remove debris and noxious materials.*

The proposed WQR mitigation plantings include a mix of native and ornamental trees and shrubs, with total proposed WQR tree numbers meeting the 5 trees/500 sq. ft. of disturbance area threshold for HCAs. At approximately 10,200 square feet, the proposed WQR mitigation zone is approximately 1.5 times the permanent WQR impact area. All bare areas within the mitigation zone will be planted or seeded to

provide 100% surface coverage, and debris and noxious materials will be inventoried and removed prior to planting.

The proposed HCA and WQR mitigation will occur on-site and in areas within or contiguous with existing HCA and WQR areas. Overall, the proposed project will remove no riparian trees and shrubs and will plant at least 165 trees of predominantly native species and at least 511 native shrubs, providing an ecological lift to the site in terms of vegetation diversity, habitat structure, and water quality functions.

Revegetation of disturbed areas will be done as early as practicable in the construction schedule to stabilize soils and initiate plant establishment. Construction is estimated to occur from approximately March 2023 to February 2024, which would allow woody vegetation to be installed towards the end of the construction period, with no delay needed to avoid installation during dry summer conditions.

The areas of natural trees, shrubs, and groundcover within WQR and HCA on the site are located on the downhill side of the existing riverside paths. That existing functional vegetated corridor will be maintained by this project, as the proposed improvements are located along and above the existing riverside paths and will not involve removal of the existing natural riparian vegetation.

Construction of the project is planned for approximately March 2023 to February 2024. Removal of any existing artificial debris, noxious materials, and invasive species will occur in the planting areas prior to planting. Mitigation plantings will be installed during the construction period, likely during the latter part of the schedule and within the MMC-recommended planting windows of December 1 to April 15 for bare root trees and October 15 to April 30 for potted plants. Monitoring and maintenance of the mitigation plantings will be performed for a minimum of two years to ensure a minimum 80% survival rate. An annual report on the survival rate of the mitigation plantings will be prepared and submitted to the City for two years after plant installation.

The Planning Commission finds that the applicant's mitigation plan is sufficient for purposes of reviewing the proposed activity against the approval criteria provided in MMC 19.402.12. As conditioned, this standard is met.

(b) Approval Criteria

MMC Subsection 19.402.12.B provides the approval criteria for discretionary review as follows:

Note: ESA reviewed the applicant's technical report and presented its assessment to the City in a summary memo, which informs this portion of the findings.

(i) Avoid – The proposed activity avoids the intrusion of development into the WQR and/or HCA to the extent practicable, and has less detrimental impact to the natural resource areas than other practicable alternatives.

As described in these Findings and in the natural resources report, the project avoids development into the WQR and HCA to the extent practicable and avoids new development within the functional vegetated corridor entirely (i.e., that area of trees, shrubs, and herbaceous species along the river below the existing riverside paths).

An alternatives analysis was performed during the planning and preliminary design phases of this project, with three alternatives shared with the public during 2018-2019 outreach efforts. The alternatives analysis explored different layouts and amenity highlights while all attempting to capture the common key programmed elements for the park. The alternative selected to advance into final design (Alternative 1 – "Flow") had equal or lesser WQR/HCA impacts than the other two alternatives (Alternative 2- "Fluvial" and Alternative 3 – "Vista"). Additionally, WQR/HCA impacts were further avoided as the Alternative 1 design was advanced from the preliminary stage to the design proposed in the land use application, by shifting the playground location farther away from the river and removing from the design a river overlook that would have extended into the vegetated corridor on the west side of the existing Riverside Path.

(ii) Minimize – If the applicant demonstrates that there is no practicable alternative to avoid disturbance of the natural resource, then the proposed activity shall minimize detrimental impacts to the extent practicable.

The proposed park improvements are consistent with the "Parks and open space" uses permitted outright in the Open Space zone under MMC 19.304.2. The proposed project minimizes habitat loss and detrimental impacts to ecological functions and habitat loss by siting all new development outside of the functional vegetated corridor on the river and creek banks below the existing riverside paths, and mitigating for impacts to WQR/HCA areas consisting mostly of park landscaping (lawn) through planting of trees, shrubs, and groundcover within and adjacent to existing WQR/HCA.

The project will incorporate the impact minimization measures of MMC 19.402.11.A for work in WQR areas and HCA as follows:

- *Work areas will be marked to reduce potential damage to the WQR and/or HCA.*

- *Trees in WQRs or HCAs will not be used as anchors for stabilizing construction equipment.*
- *Native soils disturbed during development shall be conserved on the property.*
- *An erosion and sediment control plan will be prepared in compliance with requirements set forth in the City's Public Works Standards.*
- *Site preparation and construction practices will be followed that prevent drainage of hazardous materials or erosion, pollution, or sedimentation to any WQR adjacent to the project area.*
- *Stormwater from new impervious surfaces associated with the project will be managed to meet City stormwater management requirements, including treatment of the pollution reduction design storm. The site is adjacent and discharges to the Willamette River, which is exempt from flows control requirements.*
- *Prior to construction, the WQR and/or HCA that is to remain undeveloped will be flagged, fenced, or otherwise marked and will remain undisturbed. Such markings will be maintained until construction is complete.*
- *The construction phase of the development will be done in such a manner as to safeguard the resource portions of the site that have not been approved for development.*
- *As described in the response to 19.402.12.A.6.c.2, the proposed lighting plan has been developed to minimize impact to habitat functions, using existing bollard lighting for the Riverside Pathway and existing/relocated/new lights for the Trolley Trail to meet safety requirements, while leaving internal pathways unlit to avoid redundant lighting and unnecessary lighting impacts to WQR/HCA.*
- *All work on the property will conform to a construction management plan prepared according to Subsection 19.402.9. A construction management plan will be submitted to the city.*

The project site discharges directly to the Willamette River, and the proposed site improvements will not substantially change river hydrology. The project minimizes impacts from new impervious surface by incorporating permeable pavement into the Trolley Trail improvements to infiltrate stormwater in place where infiltration rates are suitable, and will ensure proposed new and existing stormwater treatment systems are adequately sized for treatment and conveyance in accordance with City and Portland Stormwater

Management Manual requirements. Flows control requirements do not apply to sites that discharge directly to the Willamette River.

The project involves no elements below the OHW level of the Willamette River and will not affect fish passage. The project minimizes impacts on wildlife corridors along the river by keeping the proposed project elements above and outside of the existing vegetation (trees, shrubs, and groundcover) along the river below the existing Riverside Pathway.

The project includes plantings of native species within and outside of resources areas to increase overall tree canopy coverage at the site. An existing large coastal redwood on the site will be preserved, as will the street trees along McLoughlin Blvd.

(iii) Mitigate – If the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the natural resource, then the proposed activity shall mitigate for adverse impacts to the resource area. The applicant shall present a mitigation plan that demonstrates compensation for detrimental impacts to ecological functions, with mitigation occurring on the site of the disturbance to the extent practicable, utilization of native plants, and a maintenance plan to ensure the success of plantings.

As noted in these Findings, the applicant's submittal includes a mitigation plan for the WQR and HCA disturbance that will accompany the proposed development. The project would permanently impact a total combined HCA/WQR area of approximately 0.38 acres consisting mostly of lawn. To compensate for permanent impacts to ecological functions (and the potential for future ecological functions by replacing lawn with pavement/structures), the project includes approximately 0.57 acre of designated mitigation area that would be planted with native trees, shrubs, and groundcover, increasing the vegetation diversity, habitat structure, and tree canopy coverage for the site. Impacts on water quality and hydrologic functions from new impervious surfaces would be mitigated through the proposed stormwater management approach, which will infiltrate where feasible, treat the water quality design storm, and include adequately sized conveyance to direct discharges to the Willamette River in accordance with City stormwater management requirements.

The planting plan includes native tree, shrub, and groundcover species as shown on the submitted plans. Native trees proposed for mitigating HCA impacts per the 5 trees/500 sq. ft. disturbance area criterion include cascara buckthorn (Rhamnus purshiana), red alder (Alnus rubra), and Pacific dogwood (Cornus nuttallii). Native shrubs proposed for HCA mitigation for meeting the 25 shrubs/500 sq. ft. disturbance area criterion include Oregon grape (Mahonia aquifolium), kinnikinnick (Arctostaphylos uva-ursi), and

snowberry (Symphcarpos albus). Additional native plant species, along with some ornamental trees and grasses suitable for the park setting, are also included in the planting plan.

Monitoring and maintenance of the mitigation plantings will be performed for a minimum of two years to ensure a minimum 80% survival rate. An annual report on the survival rate of the mitigation plantings will be prepared and submitted to the City for two years after plant installation.

The Planning Commission finds that, as conditioned, the proposed development meets the approval criteria for discretionary review as established in MMC 19.402.12.B.

As conditioned, the Planning Commission finds that the proposed development meets the applicable discretionary review standards of MMC 19.402.12.

9. MMC 19.500 Supplementary Development Regulations

   a. MMC 19.504 Site Design Standards

      (1) MMC 19.504.9 On-Site Walkways and Circulation

      MMC 19.504.9 establishes standards for on-site walkways, including requirements that on-site walkways be at least 5 ft wide, constructed of hard surface materials that are permeable for stormwater, and lighted to a minimum level of 0.5 footcandles.

      All walkways proposed with this project will be constructed using a hard surface material and will range from 6 to 10 feet in width. Walkways along the southern portion of the project site, adjacent to the parking areas and internal driveways, will be separated from the parking and driving areas using both 6-inch raised and flush curbs. Permeable pavement is proposed for the Trolley Trail improvements proposed with this project. Permeable pavement is not proposed for other walkways and a variance has been requested from this standard as discussed in Finding 14.

      Walkways that comprise the Riverside Pathway (along the western boundary of the project site) will be lit to calculated average of 0.5 footcandles with a maximum of 5.2 footcandles immediately surrounding the light sources. Lighting along the Riverside Pathway will be provided by existing bollard lights.

      Walkways along the Trolley Trail (near the eastern boundary of the project site) will be lit to a calculated average of 1.0 footcandles with a maximum of 5.3 footcandles immediately surrounding the light sources. Lighting along the Trolley Trail will be provided by existing light posts, two relocated light posts, and two new light posts. The relocated and new light posts were included in project designs to better distribute lighting along the trail.

      Internal pathways between the Riverside Pathway and the Trolley Trail will not be illuminated. The internal pathways have been designed to provide access from the Riverside Pathway, Trolley Trail, and public sidewalks adjacent to Milwaukie Bay Park

to the various improvements and amenities proposed in the project design. These internal pathways are intended to complement design elements and are not intended to serve as the primary pedestrian thoroughfares through the park. The internal pathways serve as redundant access routes that ultimately provide access to the same locations as the illuminated walkways on the Riverside Pathway and Trolley Trail.

As discussed in Finding 14, the Planning Commission finds that the requested variance from the requirement for permeable on-site walkways is approved; however, the multi-use pathway must be constructed with pervious pavement.

As conditioned, the Planning Commission finds this standard has been met.

b. MMC Section 19.508 Downtown Site and Building Design Standards

MMC 19.508 establishes design standards for downtown development, to encourage building design and construction with durable, high-quality materials. The design standards are applicable to all new development. MMC Subsection 19.508.4 establishes standards for seven different elements of design.

The proposed development includes a new two-stall restroom that would be 275 sq ft in area and 11 ft tall. Based on this, the only applicable standards for the restroom are addressed below.

(1) 19.508.4.C Weather Protection

Weather Protection Required

(a) All buildings shall provide weather protection for pedestrians as follows:

(i) Minimum Weather Protection Coverage

(i) All ground-floor building entries shall be protected from the weather by canopies or recessed behind the front building façade at least 3 ft.

(ii) Permanent awnings, canopies, recesses, or similar weather protection shall be provided along at least 50% of the ground-floor elevation(s) of a building where the building abuts a sidewalk, civic space, or pedestrian accessway. Weather protection used to meet the above standard shall extend at least 4 ft, and no more than 6 ft, over the pedestrian area, and a maximum of 4 ft into the public right-of-way. Balconies meeting these dimensional requirements can be counted toward this requirement.

The restroom structure roof will include a canopy that extends 4 feet out from the building over the restroom entry. The roof canopy will cover 100% of the ground-floor elevation areas that abut the pedestrian accessway adjacent to the restroom structure. The roof canopy used to provide weather protection will extend 4 feet

over the pedestrian area at the front of the building. The building and canopy do not extend into the public right-of-way.

This standard is met.

(2) 19.508.4.D Exterior Building Materials

Exterior Wall Standards

(a) The following standards are applicable to the street-facing façades of all new buildings. For the purposes of this standard, street-facing façades are those abutting streets, courtyards, and/or public squares in all of the downtown. Table 19.508.4.D specifies the primary, secondary, and prohibited material types referenced in this standard.

(i) Buildings shall utilize primary materials for at least 65% of each applicable building façade.

The restroom structure exterior walls are proposed to be built of cast-in-place board-formed concrete and cedar slats. Finished metal panels will be located along the roofline of the entire building perimeter to accommodate ventilation. According to Table 19.508.4.D, all proposed materials are approved for building façades. Finished wood (cedar slats) is approved as a primary material and concrete and finished metal are secondary materials. The finished wood cedar slats will comprise 65% of the street facing façade. This standard is met.

(ii) Secondary materials are permitted on no greater than 35% of each applicable building façade.

Cast-in-place board-formed concrete and finished metal (secondary materials) will comprise 35% of the street facing façade. This standard is met.

(iii) Accent materials are permitted on no greater than 10% of each applicable building façade as trims or accents (e.g. flashing, projecting features, ornamentation, etc.).

No accent materials are proposed as part of the building facade. This standard is met.

(iv) Buildings shall not use prohibited materials on any exterior wall, whether or not it is a street-facing façade.

No prohibited materials will be used on any exterior wall of the restroom building. This standard is met.

(3) 19.508.4.E Windows and Doors

(a) Main Street

For block faces along Main St, 50% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors. The ground-floor street wall area is defined as the area up to the finished ceiling height of the space fronting the street or 15 ft above finished grade, whichever is less.

The restroom building is not situated along Main Street. This standard does not apply.

(b) Other Streets

For all other block faces, the exterior wall(s) of the building facing the street/sidewalk must meet the following standards:

(i) 40% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors.

(ii) Along McLoughlin Blvd the required coverage is 30%.

The restroom structure faces McLoughlin Blvd, and as such, this standard would require 30% of the building facing the street to be windows. However, as the proposed structure is a restroom – and not a building such as a retail space where a visual connection between exterior and interior spaces is desired - no ground floor windows are proposed. Further, the building is set back from McLoughlin Blvd approximately 50 ft.

To address the purpose of the window standard as it would apply to a restroom in a park, which is to allow for daylighting of interior space, two skylights are included in the design to provide natural light while maintaining privacy for users of the restroom building. Downtown Design Guidelines regarding windows are related specifically to retail business and residences and do not apply to the proposed restroom building.

(4) 19.508.4.F Roofs and Rooftop Equipment

Purposed: To create a visually interesting condition at the top of the building that enhances the quality and character of the building.

The proposed roof form of the restroom building is a shed roof. There are no existing buildings in the immediate vicinity of the proposed restroom. The proposed restroom building will have no equipment or other structures on the roof. This standard is met.

The Planning Commission finds this standard has been met.

10. MMC Chapter 19.600 Off-Street Parking and Loading

MMC 19.600 regulates off-street parking and loading areas on private property outside the public right-of-way. The purpose of these requirements includes providing adequate space for off-street parking, minimizing parking impacts to adjacent properties, and minimizing environmental impacts of parking areas.

a. MMC Section 19.602 Applicability

MMC 19.602 establishes the applicability of the provisions of MMC 19.600, and MMC Subsection 19.602.3 establishes thresholds for full compliance with the standards of MMC 19.600. Development of a vacant site is required to provide off-street parking and loading areas that conform fully to the requirements of MMC 19.600.

Parks are subject to the off-street parking requirements of MMC 19.600. However, off-street vehicle parking for Milwaukie Bay Park, which is located on the southern portion of the park, was developed as part of an earlier phase of park improvements. No additional vehicle parking is required or proposed as part of the Phase 3 park improvements.

Bicycle parking requirements are listed in MMC 19.609 and addressed below. The Planning Commission finds that the provisions of MMC 19.600 related to bicycle parking are applicable to the proposed development.

b. MMC Section 19.609 Bicycle Parking

(1) MMC Subsection 19.609.2 establishes required quantity of bicycle parking.

(a) The quantity of required bicycle parking spaces shall be as described in this subsection. In no case shall less than 2 spaces be provided.

(i) Unless otherwise specified, the number of bicycle parking spaces shall be at least 10% of the minimum required vehicle parking for the use.

(ii) The number of bicycle parking spaces at transit centers shall be provided at the ratio of at least 1 space per 100 daily boardings.

(iii) Multifamily residential development with 4 or more units shall provide 1 space per unit.

Milwaukie Bay Park contains 38 total off-street vehicle parking spaces in two lots constructed during an earlier phase of work at the park. The north lot includes 17 spaces. The south lot, which is shared with Water Environmental Services (WES), who operates the adjacent Kellogg Water Resource Recovery Facility, includes 21 spaces. With 38 total vehicle parking spaces, the minimum number of required bicycle parking spaces for the park is four.

During the April 28, 2022, pre-application meeting and in the Pre-Application Summary Report (Appendix A), the City encouraged the NCPRD team to provide ample bike parking in the park as part of this project, to help accommodate large events at the park and in recognition of

the City's efforts to promote alternative modes of transportation throughout the City. The proposed design includes 18 bike parking spaces with 6 spaces located on the south side of the amphitheater and 12 spaces located in the plaza near Monroe Street.

This standard is met.

(b) Covered or enclosed bicycle parking. A minimum of 50% of the bicycle spaces shall be covered and/or enclosed (in lockers or a secure room) in any of the following situations

(i) When 10% or more of vehicle parking is covered.

(ii) If more than 10 bicycle parking spaces are required.

(iii) Multifamily residential development with 4 or more units.

None of the vehicle parking spaces are covered, and the site does not contain any multifamily residential developments. Although the project proposes more than 10 bicycle parking spaces, the code only requires four spaces for the site. Therefore, this standard does not apply.

(2) 19.609.3 Space Standards and Racks

(a) The dimension of each bicycle parking space shall be a minimum of 2 x 6 ft. A 5-ft-wide access aisle must be provided. If spaces are covered, 7 ft of overhead clearance must be provided. Bicycle racks must be securely anchored and designed to allow the frame and 1 wheel to be locked to a rack using a high security, U-shaped, shackle lock.

The proposed bicycle parking will be designed to meet the dimensions of this standard. Covered spaces are not proposed. As conditioned, this standard is met.

(b) Lighting shall conform to the standards of Subsection 19.606.3.F, which state: Lighting is required for parking areas with more than 10 spaces. The Planning Director may require lighting for parking areas of less than 10 spaces if the parking area would not be safe due to the lack of lighting. Lighting shall be designed to enhance safe access for vehicles and pedestrians on the site, and shall meet the following standards:

(i) Lighting luminaires shall have a cutoff angle of 90 degrees or greater to ensure that lighting is directed toward the parking surface.

(ii) Parking area lighting shall not cause a light trespass of more than 0.5 footcandles measured vertically at the boundaries of the site.

(iii) Pedestrian walkways and bicycle parking areas in off-street parking areas shall have a minimum illumination level of 0.5 footcandles, measured horizontally at the ground level.

(iv) Where practicable, lights shall be placed so they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.

This standard applies to bicycle parking in off-street vehicle parking areas. The proposed project does not add bicycle parking to vehicle parking areas. Six bicycle parking spaces are proposed on the south side of the amphitheater, and 12 bicycle parking spaces are proposed in the plaza near Monroe Street. The 12 spaces in the Monroe Plaza will have lighting that will meet the 0.5 footcandle standard for pedestrian walkways and bicycle parking areas, as shown on the electrical/lighting plans included in the application. The lighting for that area will not shine directly into WQR or HCA. The relevant parts of this standard will be met.

(3) 19.609.4 Location

(a) Bicycle parking facilities shall meet the following requirements:

(i) Located within 50 ft of the main building entrance.

(ii) Closer to the entrance than the nearest non-ADA designated vehicle parking space.

(iii) Designed to provide direct access to a public right-of-way.

(iv) Dispersed for multiple entrances.

(v) In a location that is visible to building occupants or from the main parking lot.

(vi) Designed not to impede pedestrians along sidewalks or public rights-of-way.

(vii) Separated from vehicle parking areas by curbing or other similar physical barriers.

The bicycle parking spaces proposed near the amphitheater and the plaza near Monroe St are intended to accommodate users of the overall park and not provide parking specific to any building; therefore, the standards related to building entrances do not apply. The proposed bicycle parking is situated so that it will not impede pedestrians along sidewalks or in public right-of-way. This standard is met.

11. MMC Chapter 19.700 Public Facility Improvements

MMC 19.700 is intended to ensure that development, including redevelopment, provides public facilities that are safe, convenient, and adequate in rough proportion to their public facility impacts.

a. MMC Section 19.702 Applicability

MMC 19.702 establishes the applicability of the provisions of MMC 19.700, including partitions, subdivisions, new construction, and modification or expansion of an existing structure or a change or intensification in use that result in any projected increase in vehicle trips or any increase in gross floor area on the site.

The applicant proposes to construct new park improvements which will intensify the current use and have a projected increase in vehicle trips.

MMC 19.700 applies.

b. MMC Section 19.703 Review Process

MMC 19.703 establishes the review process for development that is subject to MMC 19.700, including requiring a preapplication conference, establishing the type of application required, and providing approval criteria.

The applicant had a preapplication conference with City staff on April 28th, 2022, prior to application submittal. The proposed development does not require a Transportation Facilities Review application.

c. MMC Section 19.704 Transportation Impact Evaluation

MMC 19.704 establishes the process and requirements for evaluating development impacts on the surrounding transportation system, including determining when a formal Transportation Impact Study (TIS) is necessary and what mitigation measures will be required.

The City Engineer determined that a transportation impact study was not required as the existence of impacts on the transportation system was evident.

d. MMC Section 19.705 Rough Proportionality

MMC 19.705 requires that transportation impacts of the proposed development be mitigated in proportion to its potential impacts.

Transportation impacts of the proposed development are to be mitigated through the required multi-use path on the property.

e. MMC Section 19.707 Agency Notification and Coordinated Review

MMC 19.707 establishes provisions for coordinating land use application review with other agencies that may have some interest in a project that is in proximity to facilities they manage.

The City shall provide notice to the following agencies:

- *Oregon Department of Transportation (ODOT)*
- *Metro*
- *Clackamas County*

- *TriMet*

This standard is met.

f. MMC Section 19.708 Transportation Facility Requirements

MMC 19.708 establishes the City's requirements and standards for improvements to public streets, including pedestrian, bicycle, and transit facilities.

(1) MMC Subsection 19.708.1 General Street Requirements and Standards

MMC 19.708.1 provides general standards for streets, including for access management, clear vision, street layout and connectivity, and intersection design and spacing.

Per the City Engineer, no street transportation facilities are required. This standard is met.

(2) MMC Subsection 19.708.2 Street Design Standards

MMC 19.708.2 provides design standards for streets, including dimensional requirements for the various street elements (e.g., travel lanes, bike lanes, on-street parking, landscape strips, and sidewalks).

Per the City Engineer, no street transportation facilities are required. This standard is met.

(3) MMC Subsection 19.708.5 Pedestrian/Bicycle Path Requirements and Standards

MMC 19.708.5 provides standards for pedestrian and bicycle paths and requires such connection be built in addition to public streets in residential districts every 300ft when a street connection is not feasible, in residential districts where a path would reduce walking distance by at least 400 ft to a transit stop, school, shopping center, or park, or where a path would provide a midblock connection between blocks that exceed 800 ft or would link the end of a turnaround with a nearby street or activity center.

The proposed development will construct a public multi-use path. Paths shall be located to provide a reasonably direct connection between likely pedestrian and bicyclist destinations. A path shall have a minimum improved surface width of 10 feet.

A condition has been established to require the multi-use path to be constructed using pervious material.

As conditioned, this standard is met.

(4) MMC Subsection 19.708.6 Transit Requirements and Standards

MMC 19.708.6 provides standards for transit facilities.

Transit facility improvements are not required for the proposed development.

As conditioned, the Planning Commission finds that the proposed development will meet the applicable public facility improvement standards of MMC 19.700.

12. MMC Section 19.905 Conditional Uses

MMC 19.905 establishes regulations for conditional uses, including standards for establishing uses identified as conditional uses in any overlay zones. As noted in Finding 8-a and as provided in MMC Subsection 19.401.5.A, activities within the Willamette Greenway zone that trigger Willamette Greenway review are subject to the provisions of Section 19.905 as conditional uses.

a. MMC Subsection 19.905.3 Review Process

MMC 19.905.3 establishes the process by which a new conditional use must be reviewed.

As noted in Finding 8-a, the proposed activity is development as defined for the Willamette Greenway zone and so requires review as a conditional use.

MMC 19.905.3.A requires that establishment of a new conditional use be evaluated through the Type III review process per MMC Section 19.1006.

b. MMC Subsection 19.905.4 Approval Criteria

MMC 19.905.4.A establishes the approval criteria for a new conditional use or a major modification to an existing conditional use.

(1) The characteristics of the lot are suitable for the proposed use considering size, shape, location, topography, existing improvements, and natural features.

The existing property is the location of Milwaukie Bay Park and its size and shape are suitable to accommodate the additional features proposed through this work. The location of the park is central to Downtown Milwaukie, accessible throughout the region, and serves as a convenient location for community gatherings. The topography of the site contains grades that are accessible for individuals and the proposed project work, but which will be improved greatly in the proposed design for more extensive ADA-compliant access. Work was recently completed on the southern portion of the site to add a boat launch and parking area; the improvements proposed through this work were designed to seamlessly integrate into existing improvements at the site. The site is situated along the Willamette River and between Johnson Creek to the north and Kellogg Creek to the south. Improvements proposed through this work have been designed to accentuate the natural features of the site and make them more accessible to the community.

The Planning Commission finds that this standard is met.

(2) The operating and physical characteristics of the proposed use will be reasonably compatible with, and have minimal impact on, nearby uses.

The proposed improvements are designed to be compatible with existing features and uses of the site, expanding upon improvements completed at Milwaukie Bay Park during

earlier phases of work. The site will continue to operate as a park for recreational uses, and the proposed improvements will enhance and intensify some uses with the addition of an event area with stage, nature play area, interactive water feature, and picnic area. Park uses with the proposed improvements in place are expected to have minimal impact on nearby uses. The proposed improvements incorporate design elements intended to minimize impacts on the more sensitive nearby residential uses to the north and river recreational/natural uses to the west, by orientating the event area stage away from those areas and towards McLoughlin Blvd. to the east, to minimize the potential for noise impacts.

The Planning Commission finds that this standard is met.

(3) All identified impacts will be mitigated to the extent practicable.

Beyond the design considerations built into the proposal to avoid impacts to nearby uses, City Temporary Event and/or NCPRD Special Use Permits will be required for activities beyond everyday uses in the park (e.g., concerts with amplified sound, large gatherings), requiring City and NCPRD review and approval. Such permits will include conditions with considerations for mitigating potential impacts on nearby uses from noise, traffic, parking, etc.

The Planning Commission finds that this standard is met.

(4) The proposed use will not have unmitigated nuisance impacts, such as from noise, odor, and/or vibrations, greater than usually generated by uses allowed outright at the proposed location.

The potential for nuisance impacts from the proposed use will be in line with those expected from parks uses permitted in the Open Space zone. The project maintains the existing uses of the site as a park for recreational purposes and introduces new features to facilitate additional activities, including a stage for music, movies, and plays. Trash receptacles will be provided, and the park will continue to be managed and maintained to avoid nuisance impacts from litter. No impacts from odors are expected, and any amplified sound (and related vibration) from special events such as concerts will be subject to permit approval (with decibel level and time restrictions) through an application process in which the City and NCPRD provide review and input.

The Planning Commission finds that this standard is met.

(5) The proposed use will comply with all applicable development standards and requirements of the base zone, any overlay zones or special areas, and the standards in Section 19.905.

The subject property is in the Downtown Open Space zone, Willamette Greenway zone, 100-yr floodplain, and contains mapped WQR and HCA. he proposed project will comply with all applicable requirements of the base zone and any overlay zones on the proposed project site, as documented throughout these Findings.

The Planning Commission finds that this standard is met.

(6) The proposed use is consistent with applicable Comprehensive Plan policies related to the proposed use.

The proposed project and continued uses of Milwaukie Bay Park are consistent with Milwaukie's Downtown and Riverfront Land Use Framework Plan (last updated 2015), which is an ancillary document to the Comprehensive Plan (updated 2020). As stated in the Comprehensive Plan (page 76), "A fundamental concept of the Framework Plan is creating stronger connections between downtown Milwaukie to the riverfront and enhancements to Milwaukie Bay Park."

The proposed project is consistent with goals and policies of the of the Comprehensive Plan, including the overarching goal of the Parks and Recreation (Chapter 9) section, which is to

"Enhance natural areas and provide for the recreational needs of present and future city residents of all ages and abilities with an emphasis on underserved communities."

The proposed project also specifically helps implement goals and policies of the Willamette Greenway chapter of the Plan (Chapter 4), including the following:

GOAL 4.2 - GREENWAY DESIGN PLAN

Allow preparation of a Greenway Design Plan within the Willamette Greenway Boundary.

> *POLICY 4.2.1 Utilize the adopted park master plans for Kronberg Park and Spring Park, the downtown design review approval for Milwaukie Bay Park, and the management plan for Peter Kerr Park at Elk Rock Island as the Greenway Design Plan for each of the parks. Adopt future park master plans or amendments to plans through the community service use process.*

GOAL 4.4 - NATURAL RESOURCE PROTECTION

Protect and conserve the natural resources within the Willamette River Greenway while recognizing recreation needs.

> *POLICY 4.4.1 Protect and conserve natural resources in the Willamette Greenway through the City's two Natural Resource overlay zones: WQR - Water Quality Resource and HCA – Habitat Conservation Area.*
>
> *POLICY 4.4.2 Promote an increase in tree canopy within the Willamette Greenway through tree planting programs and by mitigating for any lost tree canopy that occurs through development, while recognizing the importance of retaining certain public views of the river.*

GOAL 4.5 - RECREATION

Enhance the recreational use of lands within the Willamette Greenway boundaries while protecting and conserving natural resources.

POLICY 4.5.2 Define the primary intent and purpose of each park within the Willamette River Greenway in the Parks and Recreation Chapter of the Comprehensive Plan. The parks within the Willamette River Greenway will serve a variety of needs for the City including:

- *Access to the Willamette River for water sports - boating, fishing, swimming, kayaking etc.,*
- *Recreational trails along the river,*
- *River and natural area viewing,*
- *Picnicking, and*
- *Community events*

GOAL 4.6 - PUBLIC ACCESS AND VIEW PROTECTION

Provide, improve, and maintain public access and visual access to the lands and water that make up the Willamette River Greenway.

POLICY 4.6.1 Inventory existing and encourage new public access and views within the greenway and to the Willamette River, through dedications, easements, acquisitions or

other means.

POLICY 4.6.2 Undertake efforts to make existing points of public access more accessible and usable through maintenance and signing.

GOAL 4.7 - DOWNTOWN

Maintain Milwaukie Bay Park, Dogwood Park, and Kronberg Park as the key public amenities in the downtown that attract people to the area to enjoy the open space, public trails, riverfront access, and riverfront-related development, consistent with the Downtown and Riverfront Land Use Framework Plan and park master plans.

POLICY 4.7.1 Provide safe pedestrian connections between downtown Milwaukie and the Willamette River consistent with the Downtown and Riverfront Land Use Framework Plan.

The Planning Commission finds that this standard is met.

(7) Adequate public transportation facilities and public utilities will be available to serve the proposed use prior to occupancy pursuant to Chapter 19.700.

The project site is presently served by public transportation, specifically two TriMet bus stops (#8223 and #8225) located within two blocks of the proposed project location. These stops are served by TriMet routes 29, 32, 33, 34, 70, 75, 99, and 152. The proposed project site has access to public utilities necessary for the proposed project amenities including water, sewer, and electricity.

The Planning Commission finds that this standard is met.

The Planning Commission finds that the proposed development meets the approval criteria outlined in MMC 19.905.4.A for establishing a conditional use.

c. MMC Subsection 19.905.5 Conditions of Approval

MMC 19.905.5 establishes the types of conditions that may be imposed on a conditional use to ensure compatibility with nearby uses. Conditions may be related to a number of issues, including access, landscaping, lighting, and preservation of existing trees.

The Planning Commission finds that with conditions, the proposed development adequately mitigates impacts to floodplain and natural resource areas.

d. MMC Subsection 19.905.6 Conditional Use Permit

MMC 19.905.6 establishes standards for issuance of a conditional use permit, including upon approval of a major modification of an existing conditional use. The provisions include a requirement to record the conditional use permit with the Clackamas County Recorder's Office and provide a copy to the City prior to commencing operations allowed by the conditional use permit.

As conditioned, the Planning Commission finds that the proposed development is consistent with the relevant standards established in MMC 19.905 for conditional uses.

13. MMC Section 19.907 Downtown Design Review

MMC 19.907 establishes the applicability, procedure, and approval criteria for design review of development downtown.

a. MMC Subsection 19.907.2 Applicability

For new development that is an increase in floor area for a nonresidential use of less than 10% and up to a maximum of 2,000 sq ft, Type I review is required.

The proposed development includes a 275-sq ft restroom building. The proposed development is subject to Type I review.

b. MMC Subsection 19.907.5 Approval Criteria

MMC 19.907.5 establishes the approval criteria for Type I, II, and III downtown design review. For Type I review, projects must meet the following criteria:

(1) Compliance with MMC Title 19.

(2) Compliance with applicable design standards in MMC 19.508.

For the proposed development, compliance with the applicable standards of MMC Title 19 is discussed throughout these findings. Finding 9 discusses the project's compliance with the applicable design standards of MMC 19.508.

As discussed throughout these findings, and particularly in Finding 9, and as conditioned where necessary, the proposed development satisfies the approval criteria for downtown design review.

As addressed throughout these findings (particularly in Finding 9, and as conditioned where necessary, the Planning Commission finds that the proposed development meets the approval criteria for Type I downtown design review.

14. MMC Section 19.911 Variances

MMC Section 19.911 establishes the variance process for seeking relief from specific code sections that have the unintended effect of preventing reasonable development or imposing undue hardship.

a. MMC Subsection 19.911.2 Applicability

MMC 19.911.2 establishes applicability standards for variance requests.

Variances may be requested to any standard of MMC Title 19, provided the request is not specifically listed as ineligible in MMC Subsection 19.911.2.B. Ineligible variances include requests that result in any of the following: change of a review type, change or omission of a procedural step, change to a definition, increase in density, allowance of a building code violation, allowance of a use that is not allowed in the base zone, or the elimination of restrictions on uses or development that contain the word "prohibited."

The applicant has requested a variance to allow for pathways constructed with impervious materials.

The requested variances meet the eligibility requirements established in MMC 19.911.2.

b. MMC Subsection 19.911.3 Review Process

MMC 19.911.3 establishes review processes for different types of variances. Subsection 3-B establishes the Type II review process for limited variations to certain numerical standards. Subsection 3-C establishes the Type III review process for larger or more complex variations to standards that require additional discretion and warrant a public hearing.

The requested variance is not identified in MMC 19.911.3.B as being eligible for Type II review. Therefore, the requested variance is subject to the Type III review process and the approval criteria established in MMC Subsection 19.911.4.B.

c. MMC Subsection 19.911.4 Approval Criteria

MMC 19.911.4 establishes approval criteria for variance requests. Specifically, MMC Subsection 19.911.4.B.1 provides the following approval criteria for Type III variances where the applicant elects to utilize the Discretionary Relief Criteria:

(1) The applicant's alternatives analysis provides, at a minimum, an analysis of the impacts and benefits of the variance proposal as compared to the baseline code requirements.

The stormwater management approach and the pervious pavement variance proposed with the application are based on an analysis of existing site conditions and a

comparison of infiltration vs. filtration treatment approaches. Details on the basis for the proposed stormwater management approach are provided in the Preliminary Stormwater Management Report prepared in support of this application by Zucker Engineering and Design, dated June 2022.

A soils evaluation and infiltration testing documented by Hart Crowser in 2018 and 2022 revealed the site to be blanketed with 1 to 3 feet of fill, with variable but generally low infiltration rates. Four of five shallow infiltration tests (depths of 2 to 3 feet) performed across the site in 2022 indicated infiltration rates of less than 1 inch per hour. A fifth test performed on the upper part of the site near McLoughlin Blvd. showed much higher rates of 13 inches per hour.

Pervious asphalt is proposed for the Trolley Trail portion of the project, since it is located in an area where infiltration rates were found to be high and suitable for pervious pavement. Impervious pavement draining to a vegetated surface facility (grassy swale) for filtration is proposed for the other walkways on the site.

Pervious pavement was considered for the other walkways on the site, weighing the impacts and benefits of attempting to rely on pervious pavement versus allowing water to shed from the impervious paths to a vegetated swale designed to accommodate it. Both approaches could meet City stormwater management requirements. The proposed approach to use impervious concrete for the majority of the site walkways and provide surface treatment facilities is preferred for several reasons, including the following:

- *The site has generally poor infiltration rates that are not conducive to infiltration-type stormwater facilities. If adequate infiltration is not achieved and infiltration facilities do not function as designed, there is a potential for untreated runoff to enter the Willamette River. Incorporation of vegetated treatment facilities that rely on filtration rather than infiltration should provide more reliable and consistent stormwater treatment.*
- *Vegetated facilities provide treatment performance similar to permeable pavement in suitable conditions, but vegetated facilities provide additional benefits that permeable pavement does not provide, including:*
    - *Vegetated facilities provide an additional 'green' aesthetic.*
    - *At the Milwaukie Bay Park site, the proposed grassy swale will provide additional function as a barrier to geese.*
    - *The prevailing understanding is that vegetated stormwater facilities improve or maintain infiltration capacity over time because of root growth.*
    - *Microbial communities associated with root systems provide soil microbe diversity and help fix atmospheric carbon and nitrogen, and are known to break down pollutants including hydrocarbons.*

- *Typical concrete is more durable than permeable concrete, particularly as it relates to shear strength. The geotechnical investigation completed for this project suggests a modest settlement potential. Pavement that has cracked, settled, or otherwise degraded can present safety concerns for pedestrians, particularly those with mobility challenges. Under conditions with moderate settlement potential, typical concrete would likely outperform permeable concrete, and settled concrete joints and panels on typical concrete would be easier to repair via grinding.*
- *Permeable concrete requires effective maintenance over time to perform as expected. Permeable concrete at this site would be maintained; however, when particulate matter accumulates in voids over time from natural causes despite ongoing maintenance, there is a greater chance of decreasing performance. At many sites, this is not a concern that exceeds benefits, but at this site where there is low infiltration and sensitive water resources, it is important to have systems that will ensure that clogging and decreased performance over time will be less likely.*

The Planning Commission finds that the applicant's submittal provides an adequate analysis of the impacts and benefits of the requested variances compared to the baseline requirements. This criterion is met.

(2) The proposed variance is determined to be both reasonable and appropriate, and it meets one or more of the following criteria:

(a) The proposed variance avoids or minimizes impacts to surrounding properties.

The proposed variance avoids impacts to surrounding properties. Stormwater runoff from the proposed impervious concrete walkways would be captured and treated on-site through surface vegetated filtration facilities. The proposed grassy swale is designed to meet stormwater management requirements adopted by the City of Milwaukie in the form of the City of Portland's Stormwater Management Manual, and it is sized with adequate capacity to meet freeboard requirements during the peak 25-year flow event. The proposed use of impervious pavement and vegetated surface filtration facilities would not adversely impact surrounding properties through water quality or water quantity concerns. The project site's location adjacent to the Willamette River exempts it from on-site flow control requirements.

(b) The proposed variance has desirable public benefits.

Typical impervious concrete is a durable, stable, all-weather material that provides a safe pedestrian travel surface over the long-term. It is generally less prone to weather-related damage and/or other degradation than pervious pavement, especially at sites where low infiltration rates are a concern. The proposed variance

would benefit the public users of the park walkways by providing a more durable walking surface than permeable pavement.

(c) The proposed variance responds to the existing built or natural environment in a creative and sensitive manner.

The proposed use of typical impervious concrete for most site walkways rather than permeable pavement is a direct response to existing soil conditions at the site, which have generally poor infiltration capacity as determined through infiltration testing. The proposed stormwater management approach incorporates a surface vegetated treatment facility that is sensitive to environmental conditions at the site (i.e., a non-structural approach to treatment) and provides creative secondary functions in the form of a vegetated barrier between lawn and path that is intended to deter geese, increase plantings, and increase the aesthetic quality of the site.

The Planning Commission finds that the requested variance is reasonable and appropriate and that each meets one or more of the criteria provided in MMC Subsection 19.911.B.1.b.

(3) Impacts from the proposed variance will be mitigated to the extent practicable.

The potential for adverse impacts from not infiltrating stormwater within the walkway footprints will be avoided and fully mitigated by capturing walkway runoff and treating it on-site in compliance with the City's stormwater standards, using a vegetated facility that is sized and designed in accordance with City of Portland Stormwater Management Manual requirements.

As proposed, the Planning Commission finds that the requested variance meets the approval criteria established in MMC 19.911.4.B.1 for Type III variances seeking discretionary relief.

The Planning Commission finds that the requested variance is allowable as per the applicable standards of MMC 19.911.

15. The application was referred to the following departments and agencies on July 11, 2022:
    - Milwaukie Building Division
    - Milwaukie Engineering Department
    - Milwaukie Public Works Department
    - Clackamas County Fire District #1
    - Historic Milwaukie and Island Station Neighborhood District Association Chairperson and Land Use Committee
    - Oregon Marine Board
    - Oregon Department of Fish and Wildlife
    - Division of State Lands – Wetlands and Waterways
    - Oregon Parks and Recreation Department
    - North Clackamas Parks and Recreation District
    - Milwaukie Parks and Recreation Board

- ODOT Region 1
- TriMet
- Clackamas County Engineering Review

Notice of the public hearing was mailed to owners and residents of properties within 300 ft of the subject property on August 2, 2022.

ATTACHMENT 2
Conditions of Approval
Primary File # NR-2022-001
Phase 3 – Milwaukie Bay Park

1. Applicant must construct the project in compliance with all Public Works Standards and the requirements identified in Other Requirements.
2. Building Permit Submittal

   At the time of submittal of the associated development permit application(s), the following must be resolved:

   a. Final plans submitted for development permit review must be in substantial conformance with the plans and drawings approved by this action, which are the revised plans and drawings received by the City on July 6, 2022, except as otherwise modified by these conditions of approval.

   b. Provide a detailed narrative describing all actions taken to comply with these conditions of approval. In addition, describe any changes made after the issuance of this land use decision that are not related to these conditions of approval.

   c. Final plans submitted for construction permit review must include details of the bike stall dimensions to confirm that the applicable standards are met.

   d. Final plans submitted for construction permit review must include a photometric plan showing compliance with lighting standards.

   e. Final plans submitted for construction permit review must include details of the multi-use path. The multiuse path must be constructed of pervious material.
3. Prior to issuance of development permits, the following must be resolved:

   a. Prior to commencement of any earth-disturbing activities, the applicant must obtain an erosion control permit from the City.

   b. Prior to commencement of any earth-disturbing activities, tree protection measures must be in place and maintained throughout construction. Tree protection fencing is required to be installed a minimum of 10 ft from the trunk of the existing trees on the site. Fencing must be maintained throughout the duration of construction and will be inspected. No disturbance is permitted within the fenced area.
4. Prior to final inspection of the required building permit and issuance of a certificate of occupancy, the following must be resolved:

   a. Completion of all Public Improvements as shown on approved plans:

      (1) A clear vision area shall be maintained at all intersections, driveways, and accessways.

(2) Stormwater improvements must be reviewed and deemed compliant with MMC 12.02 and MMC 13.14, including locating assets where inspection and maintenance activities can feasibly occur.

5. Landscaping Maintenance

As per MMC Subsection 19.402.11.B.9, a minimum of 80% of all required mitigation plantings for WQR or HCA disturbance must remain alive on the second anniversary of the date the planting is completed. An annual report on the survival rate of all plantings must be submitted for two years.

6. Conditional Use Permit

As per MMC Subsection 19.905.6, the City will issue a conditional use permit upon the approval of this application to establish a conditional use. The conditional use permit will include the following information:

a. A description of the use that has been approved by the City.

b. Restrictions and/or conditions of approval placed upon the use.

c. Ongoing responsibilities required for the operation of the conditional use.

d. Allowance for the transfer of rights and responsibilities upon change in ownership of either the use or the property containing the use.

e. Procedures for review, revisions, and suspension of the conditional use permit.

The applicant must record the conditional use permit with the Clackamas County Recorder's Office and provide a copy to the City prior to commencing operations allowed by the conditional use permit.

ATTACHMENT 3
Other Requirements
Primary File # NR-2022-001
Phase 3 – Milwaukie Bay Park

The following items are not conditions of approval necessary to meet applicable land use review criteria. They relate to other development standards and permitting requirements contained in the Milwaukie Municipal Code (MMC) and Public Works Standards that are required at various points in the development and permitting process.

1. The level of use approved by this action shall be permitted only after issuance of a certificate of occupancy.
2. Limitations on Development Activity.

   Development activity on the site shall be limited to 7:00 a.m. to 10:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. Saturday and Sunday, as provided in MMC Subsection 8.08.070(I).
3. Applicant must submit an access and water supply plan as required by the Clackamas Fire District #1 for full review and approval.
4. Prior to, or concurrent with, building permit submittal, the following must be resolved:
   a. Submit full-engineered plans for construction of all required public improvements, which must be reviewed and approved by the City of Milwaukie Engineering Department.
   b. Obtain a right-of-way permit for construction of all required public improvements listed in these recommended conditions of approval.
   c. Pay an inspection fee equal to 5.5% of the cost of the public improvements; at time of plan submittal, a plan review fee of 1.5% is required, the balance of the 5.5% is required at time of issuance of the right-of-way permit.
   d. Provide a payment and performance bond in the amount of 130 percent of the approved engineer's estimate or contractor's bid cost of the required public improvements.
5. Prior to final inspection, the following must be resolved:
   a. Provide a final approved set of electronic PDF red-lined "As Constructed" drawings to the City of Milwaukie.
   b. Install all underground utilities, including stubs for utility service, prior to surfacing any streets.
   c. Clear vision areas shall be maintained at all driveways and accessways and on the corners of all property adjacent to an intersection.

6. Prior to final acceptance, the following must be resolved:

   a. Provide a final approved set of digitally signed, electronic PDF "As Constructed" drawings to the City of Milwaukie.

   b. Provide a 2-year maintenance bond in the amount of 10 percent of the approved engineer's estimate or contractor's bid cost of the required public improvements.

7. Other Engineering Requirements.

   Submit a final stormwater management plan to the City of Milwaukie Engineering Department for review and approval. The plan shall be prepared in accordance with Section 2 - Stormwater Design Standards of the City of Milwaukie Public Works Standards. In the event the stormwater management system contains underground injection control devices, submit proof of acceptance of the storm system design from the Department of Environmental Quality.

   The stormwater management plan shall demonstrate that the post-development runoff does not exceed pre-development runoff, inclusive of any existing stormwater management facilities serving the development site.

   The stormwater management plan shall demonstrate compliance with water quality standards in accordance with the City of Portland Stormwater Management Manual.

   Development/building permits will not be issued for construction until the stormwater management plan has been approved and deemed compliant with MMC 12.02 and MMC 13.14 by the City of Milwaukie.

   Apply for required permit(s) for work that will occur within the identified Willamette River and Johnson Creek floodplains; submit all material, studies, etc. needed to comply with the requirements of the floodplain permit.

   Relocation of the traffic signal at Monroe Street & McLoughlin Blvd. (controlled by Oregon Department of Transportation) may trigger sidewalk and Americans with Disabilities Act (ADA) ramp improvements at all four corners of the intersection.

   All sidewalks and pathways must meet current US Access Board ADA requirements.

   Review and approval process will be more efficient if Applicant submits two sets of plans: one set for improvements within the McLoughlin Blvd right-of-way (ROW, controlled by ODOT), and a second set for all work to be constructed within the park west of this ROW.

8. Expiration of Approval

   As per MMC Subsection 19.1001.7.E, the land use approval granted with this decision will expire and become void unless the following criteria are satisfied. For proposals requiring any kind of development permit, the development must complete both of the following steps:

   a. obtain and pay for all necessary development permits and start construction within two years of land use approval

b. Pass final inspection and/or obtain a certificate of occupancy within four years of land use approval.

ATTACHMENT 4 Exhibit A

Received by Planning Department on July 5, 2022.

MILWAUKIE PLANNING
6101 SE Johnson Creek Blvd
Milwaukie OR 97206
503-786-7630
planning@milwaukieoregon.gov

Application for Land Use Action

Primary File #: NR-2022-001; WG-2022-001; VR-2022-006; DR-2022-001

Review type*: ☐ I ☐ II ☒ III ☐ IV ☐ V

CHECK ALL APPLICATION TYPES THAT APPLY:

- ☐ Amendment to Maps and/or
  - ☐ Comprehensive Plan Map Amendment
  - ☐ Zoning Text Amendment
  - ☐ Zoning Map Amendment
- ☐ Code Interpretation
- ☐ Community Service Use
- ☐ Conditional Use
- ☒ Development Review
- ☐ Director Determination
- ☒ Downtown Design Review
- ☐ Extension to Expiring Approval
- ☐ Historic Resource:
  - ☐ Alteration
  - ☐ Demolition
  - ☐ Status Designation
  - ☐ Status Deletion
- ☐ Land Division:
  - ☐ Partition
  - ☐ Property Line Adjustment
  - ☐ Replat
  - ☐ Subdivision
- ☐ Miscellaneous:
  - ☐ Barbed Wire Fencing
- ☐ Mixed Use Overlay Review
- ☐ Modification to Existing Approval
- ☒ Natural Resource Review**
- ☐ Nonconforming Use Alteration
- ☐ Parking:
  - ☐ Quantity Determination
  - ☐ Quantity Modification
  - ☐ Shared Parking
  - ☐ Structured Parking
- ☐ Planned Development
- ☐ Residential Dwelling:
  - ☐ Manufactured Dwelling Park
  - ☐ Temporary Dwelling Unit
- ☐ Transportation Facilities Review**
- ☐ Variance:
  - ☐ Use Exception
  - ☒ Variance
- ☒ Willamette Greenway Review
- ☐ Other: _____

Use separate application forms for:

- Annexation and/or Boundary Change
- Compensation for Reduction in Property Value (Measure 37)
- Daily Display Sign
- Appeal

RESPONSIBLE PARTIES:

APPLICANT (owner or other eligible applicant—see reverse): NCPRD, Heather Koch

Mailing address: 7300 S.E. Harmony Road, Milwaukie State/Zip: OR 97222

Phone(s): 971-337-6867 Email: hkoch@ncprd.com

Please note: The information submitted in this application may be subject to public records law.

APPLICANT'S REPRESENTATIVE (if different than above): 2.ink Studio

Mailing address: 160 NE Sixth Avenue, STE 200, Portland State/Zip: OR 97232

Phone(s): 503.546.4645 Email: jbeaver@2inkstudio.com

SITE INFORMATION:

Address: 11211 SE McLoughlin Blvd 97222 Map & Tax Lot(s): Multiple; see attached Narrative

Comprehensive Plan Designation: P - Public Zoning: OS Size of property: ~8.5 acres

PROPOSAL (describe briefly):

Development of Milwaukie Bay Park including new restroom, interactive water feature, playground, picnicking areas, gathering space, Trolley Trail path, secondary pathways, and planting.

SIGNATURE: I attest that I am the property owner or I am eligible to initiate this application per Milwaukie Municipal Code Subsection 19.1001.6.A. If required, I have attached written authorization to submit this application. To the best of my knowledge, the information provided within this application package is complete and accurate.

Submitted by: Date: 6/24/22

IMPORTANT INFORMATION ON REVERSE SIDE

*For multiple applications, this is based on the highest required review type. See MMC Subsection 19.1001.6.B.1.
** Natural Resource and Transportation Review applications may require a refundable deposit.

WHO IS ELIGIBLE TO SUBMIT A LAND USE APPLICATION (excerpted from MMC Subsection 19.1001.6.A):

Type I, II, III, and IV applications may be initiated by the property owner or contract purchaser of the subject property, any person authorized in writing to represent the property owner or contract purchaser, and any agency that has statutory rights of eminent domain for projects they have the authority to construct.

Type V applications may be initiated by any individual.

PREAPPLICATION CONFERENCE:

A preapplication conference may be required or desirable prior to submitting this application. Please discuss with Planning staff.

DEPOSITS:

Deposits require completion of a Deposit Authorization Form, found at www.milwaukieoregon.gov/building/deposit-authorization-form

REVIEW TYPES:

This application will be processed per the assigned review type, as described in the following sections of the Milwaukie Municipal Code:

- Type I: Section 19.1004
- Type II: Section 19.1005
- Type III: Section 19.1006
- Type IV: Section 19.1007
- Type V: Section 19.1008

THIS SECTION FOR OFFICE USE ONLY:

FILE TYPE	FILE NUMBER	AMOUNT (after discount, if any)	PERCENT DISCOUNT	DISCOUNT TYPE	DATE STAMP
Primary file	NR-2022-001	$ waived			
Concurrent application files	WG-2022-001	$			
	VR-2022-006	$			
	DR-2022-001	$			
		$			
Deposit (NR/TFR only)				☐ **Deposit Authorization Form received**	
TOTAL AMOUNT RECEIVED: $			**RECEIPT #:**		**RCD BY:**

Associated application file #s (appeals, modifications, previous approvals, etc.):

Neighborhood District Association(s): Historic Milwaukie Island Station

Notes:

Milwaukie Bay Park Phase 3 Improvements – Land Use Application

June 2022

Submitted to:
City of Milwaukie Planning Department

Applicant:
North Clackamas Parks and Recreation District

Applicant's Representative:
2.ink Studio

Application Prepared by:
Environmental Science Associates

Table of Contents

Appendices

INTRODUCTION

North Clackamas Parks and Recreation District (NCPRD) proposes to construct improvements to the Milwaukie Bay Park site along the Willamette River in downtown Milwaukie. A pre-application conference attended by members of the applicant team, the City of Milwaukie, and the Oregon Department of Transportation (ODOT) was held on April 28, 2022, to discuss the project, applicable chapters of the Milwaukie Municipal Code (MMC), and the land use review procedures required for the project. This application addresses the required land use reviews and the associated design standards and approval criteria outlined in the City's Pre-Application Report Summary dated May 12, 2022 (Appendix A).

The following reviews are requested with and addressed in this application:

- Willamette Greenway Review
- Natural Resources Review
- Downtown Design Review
- Variance Request

Additionally, this application identifies other design and permitting considerations raised during the pre-application meeting that the applicant team is aware of and will be addressing with the City outside of the land use review process (e.g., floodplain permit, right-of-way permit, sign permit), as final design is advanced.

SITE LOCATION AND ZONING

Milwaukie Bay Park encompasses approximately 8.5 acres of land at 11211 SE McLoughlin Blvd. in downtown Milwaukie, Clackamas County, Oregon (Figure 1). The park is generally situated between Johnson Creek to the north, Kellogg Creek to the south, SE McLoughlin Blvd. (Oregon Highway 99E) to the east, and the Willamette River to the west.

The proposed Phase 3 park improvements addressed in this application are located within an approximately 3.5-acre portion of the park on parts of the following tax lots: 11E35AD 00900, 01000, and 01001; 11E35AA 02200, 02300, 02400, 02500, 02600, 02700, 02800, 04700, 04800, 04900, and 05000. Parts of the existing and new permanent alignment of the Trolley Trail that is part of the park are also located outside of these parcels on four (4) segments of ODOT ROW along SE McLoughlin Blvd/OR99E. A Project Area map is included in Appendix B of this application.

The entire park site and project area are zoned by the City as Open Space (OS) and are within the Willamette Greenway (WG) overlay zone. Portions of the park and project area are also designated as Water Quality Resource (WQR) area and Habitat Conservation Area (HCA) on the City's Natural Resource Administrative Map, adopted August 2011.

The park is bordered by open space and residential property to the north and northwest, the Kellogg Water Resource Recovery Facility to the south, ODOT SE Mcloughlin Blvd/OR99E and ROW to the east, and commercial properties in the Downtown Mixed Use (DMU) zone to the east beyond SE McLoughlin Blvd.

PROJECT DESCRIPTION

The City adopted a plan for the park in 2010 to serve as the foundation for many agencies, community partners, and local citizens to participate in shaping park improvements over the years. Many elements of the plan have been designed and constructed over the past 12 years, including the Klein Point Overlook at the Johnson Creek confluence with the Willamette River; a new boat launch and dock; auto and boat trailer parking; a single restroom facility; a temporary Trolley Trail connection; a riverside path; riverbank stabilization and plantings; an improved access bridge over Kellogg Creek; and riverbank erosion repairs with new pedestrian beach access.

The proposed Phase 3 park improvements build on previous site improvements and include a nature-themed children's play area; a gathering/event area with an open lawn, stage and fire pit for special events; a nature-themed interactive water feature; new pathways; picnic areas; a restroom structure and shade structure; improvements to the existing Trolley Trail; public art; vegetation plantings and new stormwater management infrastructure.

- Nature Play Area: This area will provide a play space on three levels of the park and incorporate natural elements including rocks and logs as well as traditional and inclusive playground equipment.

- Event Area: The event area will comprise 20,000 square feet of open lawn space for events such as concerts, movies, festivals and plays. The area will include a platform for use as a stage or small gathering spot and a reservable community fire pit for special events. The lawn features subdrainage lines to extend seasonal usability. Mitigation measures to prevent geese from using the area include barrier vegetation and low fencing, a swale, and footbridges.

- Interactive Water Feature: The water feature will be a zero-depth splash pad operated by push-button activation for seasonal use. When not in operation, the area will serve as a secondary plaza with seating and natural stone elements. Water from splash pad operation will drain to the sanitary sewer system. When not in operation, rain falling on the splash pad area will be valved to drain to a swale.

- Pathways: A series of pathways ranging in width from 6 feet to 10 feet will be constructed and will connect all park features, including those currently at the site such as Klein Point, the existing lower riverside pathway, parking lot, and crosswalks at SE McLoughlin Blvd. The paths will feature non-slip surfaces and will be ADA accessible. The 10' wide walkways will be rated for vehicular use to allow maintenance vehicles and events-related access into the park.

- Picnic Areas: Picnic areas with a variety of seating types and trash receptacles will be constructed near the Trolley Trail and the water feature.

- Restroom: A two-stall restroom structure that includes a central utility room with storage will be constructed. Exterior materials will consist of board-formed concrete and

finished wood. A drinking fountain and bottle filler will be located on the exterior of the structure.

- Shade Structure: A trellis will be constructed to provide shade for the adjacent picnic areas. The structure will be painted steel and designed to complement the restroom structure.

- Trolley Trail: The portion of the Trolley Trail that runs through the project site will be widened to 14 feet and tapered at north and south ends to meet existing condition (12 feet at south, 7 feet 9 inches at north). The multiuse path will be shared, with decals and signage indicating shared use in both northerly and southerly directions. Bicycle parking will also be provided near the trail.

- Public Art: A series of heron sculptures have been proposed by Confederated Tribes of Grand Ronde to be placed seasonally at the site during the annual salmon run. The concept from CTGR is being coordinated with the City and NCPRD. The CTGR proposes to lead solicitation and installation of art annually by different sculptors.

- Vegetation: Proposed plantings of native species are intended to increase tree canopy coverage, increase potential native habitat areas at the site, and mitigate impacts to natural resource areas, while protecting views of the river. The existing large coastal redwood on the site will be preserved, as will the street trees along SE McLoughlin Blvd.

The design drawings included in Appendix C of this application illustrate the existing conditions and the Phase 3 park improvements proposed with this project.

BASE ZONE STANDARDS (MMC 19.304)

Use Standards – Open Space

The entirety of Milwaukie Bay Park is zoned Open Space (OS), which is one of two downtown zones designated by the City and regulated under MMC 19.304 (the other being the Downtown Mixed Use [DMU] zone).

As stated in **MMC 19.304.1**, the Open Space Zone provides a specific zone to accommodate open space, park, and riverfront uses. The Open Space Zone is generally applied to lands that are in public ownership along the Willamette River, Kellogg Creek, Spring Creek, and Johnson Creek in the downtown area. The desired character for the Open Space Zone includes parkland, open space, and riverfront amenities.

The following excerpt from **MMC Table 19.304.2 (Uses Allowed in the Downtown Zones)** identifies "parks and open space" as a Permitted use in the OS zone.

Table 19.304.2
Uses Allowed in Downtown Zones – Open Space

Uses and Use Categories	OS	Standards/ Additional Provisions
Institutional		
Parks and open space	P	
Parks and open space uses are lands focusing on natural areas, large areas consisting mostly of vegetative landscaping or outdoor recreation, community gardens, or public squares. Lands tend to have few buildings.		
Examples include parks, public squares, plazas, recreational trails, botanical gardens, farmers markets, boat launching areas, nature preserves, and community gardens.		

Response: The proposed Phase 3 improvements to Milwaukie Bay Park are consistent with the parks and open space category descriptions and examples and are a permitted use under MMC 19.304.2.

Dimensional Standards – Open Space

MMC 19.304.4 identifies the development standards for the DMU and OS zones. Many standards listed in MMC 19.304.4 do not apply in the OS zone. The following excerpt from **MMC Table 19.304.4** lists those standards that may apply in the OS zone.

Table 19.304.4 Downtown Zones — Summary of Open Space Development Standards		
Standard	OS	Standards/ Additional Provisions
B. Development Standards		
2. Building height (ft) Minimum Maximum	 None 15	**Subsection 19.304.5.B** Building Height **Figure 19.304-4** Base Maximum Building Heights **Subsection 19.304.5.I** Transition Measures **Subsection 19.304.5.B.3** Height Bonuses **Section 19.510** Green Building Standards **Subsection 19.911.6** Building Height Variance in the Downtown Mixed Use Zone
7. Off-street parking required	Yes, where applicable	**Subsection 19.304.5.G** Off-Street Parking **Chapter 19.600** Off-Street Parking and Loading
8. Open space	Yes, where applicable	**Subsection 19.304.5.H** Open Space **Subsection 19.508.4.G** Open Space/Plazas
C. Other Standards		
2. Signs	Yes	**Section 14.16.060** Downtown Zones

Building Height:

- **The maximum allowed building height in the OS zone is 15 feet.**

  Response: The only proposed building associated with the Phase 3 park improvements is the restroom building, which will be just under 11 feet tall as shown on the architectural drawings in Appendix C of this application. This standard is met.

Off-Street Parking:

- **19.304.5.G.3 Off-Street Parking Exemptions: all non-residential uses are exempt from the off-street parking requirements.**

Response: As a non-residential use, this project is exempt from the off-street parking requirements in this section of code. Milwaukie Bay Park has off-street vehicle parking that was developed in earlier phases of park development in accordance with MMC 19.600 (Parking Standards). No additional off-street parking is proposed or required as part of the Phase 3 improvements.

Open Space (Subsection 19.304.5.H):

- **When a building is set back from the sidewalk, at least 50% of the setback area shall provide usable open space, such as a public plaza or pedestrian amenities, that meets the standards of this subsection.**

  Response: The restroom building will be set back from SE McLoughlin Blvd sidewalk but will abut an on-site pedestrian access path, and the building will be surrounded by usable open space. This standard is met.

- **Usable open space shall be abutted on at least two sides by retail shops, restaurants, offices, services, or residences with windows and entrances fronting on the space.**

  Response: The proposed Phase 3 park improvements are within the existing Milwaukie Bay Park, which is bordered by downtown mixed-use development to the east – across SE McLoughlin Blvd – and the offices and treatment facilities of the Kellogg Water Resource Recovery Facility to the south. This standard is met.

- **Usable open space must be accessible at grade adjacent to the sidewalk.**

  Response: Open space areas proposed with this project will be accessible at grade adjacent to the proposed access paths, and the park site is accessible at grade adjacent to the SE McLoughlin Blvd sidewalk. This standard is met.

- **Open space may be hardscaped or landscaped, including plazas, courtyards, gardens, terraces, outdoor seating, and small parks.**

Response: The Phase 3 park improvements proposed in this application include a mix of landscaping and hardscaped park amenities. This standard is met.

Signs (Section 14.16.060):

A. Freestanding Sign

In the downtown zones, freestanding signs shall be monument type only. The sign face shall be no less than 60% of the total area of the monument. Pole signs are prohibited.

1. Area

The maximum permitted display surface area of a freestanding sign shall be computed on 1 sq ft of area per lineal ft of street or highway frontage.

a. In the OS Zone the maximum area shall not exceed 32 sq ft per display surface and 64 sq ft overall.

2. Height and/or Clearance

a. In the DMU Zone, freestanding signs are limited to a maximum height of 7 ft. Properties with frontage on McLoughlin Blvd may have freestanding signs with a maximum height of 15 ft and shall only be located along the McLoughlin Blvd frontage. Freestanding sign height shall be measured from the top of the sign to the lowest finished grade within a 6-ft horizontal distance from the sign.

b. In the OS Zone freestanding signs are limited to a maximum height of 6 ft above grade.

3. Number

One freestanding sign is permitted on a street or highway frontage.

Response: The project would install a single freestanding sign in the park adjacent to the Trolley Trail near Monroe St. The sign will be designed to comply with the standards of this code section. A sign permit will be requested from the City, and this standard will be met.

OVERLAY ZONES (MMC 19.400)

Willamette Greenway (19.401)

The project site and the entirety of Milwaukie Bay Park are within the Willamette Greenway (WG) overlay zone regulated under MMC 19.401. Land use actions and development within the WG overlay zone are conditional uses subject to the provisions of MMC 19.905 (Conditional Uses). The approval criteria from MMC 19.905.4.A and the Willamette Greenway criteria in MMC 19.401.6 are listed and addressed in the following subsections.

Approval Criteria for Conditional Uses (19.905.4.A)

Establishment of a new conditional use, or major modification of an existing conditional use, shall be approved if the following criteria are met:

1. **The characteristics of the lot are suitable for the proposed use considering size, shape, location, topography, existing improvements, and natural features.**

Response: The existing property is the location of Milwaukie Bay Park and its size and shape are suitable to accommodate the additional features proposed through this work. The location of the park is central to Downtown Milwaukie, accessible throughout the region, and serves as a convenient location for community gatherings. The topography of the site contains grades that are accessible for individuals and the proposed project work, but which will be improved greatly in the proposed design for more extensive ADA-compliant access. Work was recently completed on the southern portion of the site to add a boat launch and parking area; the improvements proposed through this work were designed to seamlessly integrate into existing improvements at the site. The site is situated along the Willamette River and between Johnson Creek to the north and Kellogg Creek to the south. Improvements proposed through this work have been designed to accentuate the natural features of the site and make them more accessible to the community.

2. **The operating and physical characteristics of the proposed use will be reasonably compatible with, and have minimal impact on, nearby uses.**

Response: The proposed improvements are designed to be compatible with existing features and uses of the site, expanding upon improvements completed at Milwaukie Bay Park during earlier phases of work. The site will continue to operate as a park for recreational uses, and the proposed improvements will enhance and intensify some uses with the addition of an event area with stage, nature play area, interactive water feature, and picnic area. Park uses with the proposed improvements in place are expected to have minimal impact on nearby uses. The proposed improvements incorporate design elements intended to minimize impacts on the more sensitive nearby residential uses to the north and river recreational/natural uses to the west, by orientating the event area stage away from those areas and towards SE McLoughlin Blvd. to the east, to minimize the potential for noise impacts.

3. **All identified impacts will be mitigated to the extent practicable.**

Response: Beyond the design considerations built into the proposal to avoid impacts to nearby uses, City Temporary Event and/or NCPRD Special Use Permits will be required for activities beyond everyday uses in the park (e.g., concerts with amplified sound, large gatherings), requiring City and NCPRD review and approval. Such permits will include conditions with considerations for mitigating potential impacts on nearby uses from noise, traffic, parking, etc.

4. **The proposed use will not have unmitigated nuisance impacts, such as from noise, odor, and/or vibrations, greater than usually generated by uses allowed outright at the proposed location.**

Response: The potential for nuisance impacts from the proposed use will be in line with those expected from parks uses permitted in the Open Space zone. The project maintains the existing uses of the site as a park for recreational purposes and introduces new features to facilitate additional activities, including a stage for music, movies, and plays. Trash receptacles will be provided, and the park will continue to be managed and maintained to avoid nuisance impacts from litter. No impacts from odors are expected, and any amplified sound (and related vibration) from special events such as concerts will be subject to permit approval (with decibel level and time restrictions) through an application process in which the City and NCPRD provide review and input.

5. **The proposed use will comply with all applicable development standards and requirements of the base zone, any overlay zones or special areas, and the standards in Section 19.905.**

Response: The proposed project will comply with all applicable requirements of the base zone and any overlay zones on the proposed project site, as documented throughout this application.

6. **The proposed use is consistent with applicable Comprehensive Plan policies related to the proposed use.**

Response: The proposed project and continued uses of Milwaukie Bay Park are consistent with Milwaukie's Downtown and Riverfront Land Use Framework Plan (last updated 2015), which is an ancillary document to the Comprehensive Plan (updated 2020). As stated in the Comprehensive Plan (page 76), "A fundamental concept of the Framework Plan is creating stronger connections between downtown Milwaukie to the riverfront and enhancements to Milwaukie Bay Park."

The proposed project is consistent with goals and policies of the of the Comprehensive Plan, including the overarching goal of the Parks and Recreation (Chapter 9) section, which is to "Enhance natural areas and provide for the recreational needs of present and future city residents of all ages and abilities with an emphasis on underserved communities."

The proposed project also specifically helps implement goals and policies of the Willamette Greenway chapter of the Plan (Chapter 4), including the following:

GOAL 4.2 - GREENWAY DESIGN PLAN
Allow preparation of a Greenway Design Plan within the Willamette Greenway Boundary.

POLICY 4.2.1 *Utilize the adopted park master plans for Kronberg Park and Spring Park, the downtown design review approval for Milwaukie Bay Park, and the management plan for Peter Kerr Park at Elk Rock Island as the Greenway Design Plan for each of the parks. Adopt future park master plans or amendments to plans through the community service use process.*

GOAL 4.4 - NATURAL RESOURCE PROTECTION
Protect and conserve the natural resources within the Willamette River Greenway while recognizing recreation needs.

POLICY 4.4.1 *Protect and conserve natural resources in the Willamette Greenway through the City's two Natural Resource overlay zones: WQR - Water Quality Resource and HCA – Habitat Conservation Area.*

POLICY 4.4.2 *Promote an increase in tree canopy within the Willamette Greenway through tree planting programs and by mitigating for any lost tree canopy that occurs through development, while recognizing the importance of retaining certain public views of the river.*

GOAL 4.5 - RECREATION
Enhance the recreational use of lands within the Willamette Greenway boundaries while protecting and conserving natural resources.

POLICY 4.5.2 *Define the primary intent and purpose of each park within the Willamette River Greenway in the Parks and Recreation Chapter of the Comprehensive Plan. The parks within the Willamette River Greenway will serve a variety of needs for the City including:*

- *Access to the Willamette River for water sports - boating, fishing, swimming, kayaking etc.,*
- *Recreational trails along the river,*
- *River and natural area viewing,*
- *Picnicking, and*
- Community events

GOAL 4.6 - PUBLIC ACCESS AND VIEW PROTECTION
Provide, improve, and maintain public access and visual access to the lands and water that make up the Willamette River Greenway.

POLICY 4.6.1 *Inventory existing and encourage new public access and views within the greenway and to the Willamette River, through dedications, easements, acquisitions or other means.*

POLICY 4.6.2 *Undertake efforts to make existing points of public access more accessible and usable through maintenance and signing.*

GOAL 4.7 - DOWNTOWN
Maintain Milwaukie Bay Park, Dogwood Park, and Kronberg Park as the key public amenities in the downtown that attract people to the area to enjoy the open space, public trails, riverfront access, and riverfront-related development, consistent with the Downtown and Riverfront Land Use Framework Plan and park master plans.

POLICY 4.7.1 *Provide safe pedestrian connections between downtown Milwaukie and the Willamette River consistent with the Downtown and Riverfront Land Use Framework Plan.*

7. Adequate public transportation facilities and public utilities will be available to serve the proposed use prior to occupancy pursuant.

Response: The project site is presently served by public transportation, specifically two TriMet bus stops (#8223 and #8225) located within two blocks of the proposed project location. These stops are served by TriMet routes 29, 32, 33, 34, 70, 75, 99, and 152. The proposed project site has access to public utilities necessary for the proposed project amenities including water, sewer, and electricity.

Willamette Greenway Criteria (19.401.6)

The following shall be taken into account in the consideration of a conditional use:

A. Whether the land to be developed has been committed to an urban use, as defined under the State Willamette River Greenway Plan;

Response: An urban use is described in the Willamette River Greenway Plan as a use that is part of the built environment, as opposed to uses along a river that are natural, rural, or agricultural in nature. The project area is part of Milwaukie's downtown zone, and the proposed park improvements are on land established as a park - Milwaukie Bay Park. The park use is an urban use in the downtown area along the Willamette River that is committed to urban use.

B. Compatibility with the scenic, natural, historic, economic, and recreational character of the river;

Response: The proposed improvements will enhance features at Milwaukie Bay Park and will be compatible with the scenic, natural, historic, economic, and recreational character of the river. Proposed site additions will provide individuals with amenities to use while enjoying the scenery and natural resources of the site. Additionally, the proposed additions will enhance connections between the river and downtown Milwaukie. The site additions will enhance recreational opportunities at the site.

C. Protection of views both toward and away from the river;

Response: The proposed work at the project site will protect views toward and away from the river. The proposed project involves construction of one building (restroom under 11 feet in height) in addition to other features which will have minimal impacts on views. Additionally,

other site features, including landscape plantings and walkways, have been designed to accentuate and frame views from the site, in consideration of vegetation maturing over time.

D. Landscaping, aesthetic enhancement, open space, and vegetation between the activity and the river, to the maximum extent practicable;

Response: The proposed project includes extensive landscaping and planting to promote tree canopy coverage and vegetation diversity at the site while preserving recreational function and framing views of the river. Proposed development has been sited away from the river to the extent practicable, accommodating the programmed park amenities while balancing natural resource protections along the river with public concerns about active uses (e.g., playground) adjacent to SE McLoughlin Blvd. The project avoids disturbance to the existing vegetated buffer of trees, shrubs, and groundcover along the river below the existing riverside paths.

E. Public access to and along the river, to the greatest possible degree, by appropriate legal means;

Response: The proposed project includes a series of walkways that will extend throughout the park, providing users with access to the proposed site features and integrating with existing site development, including existing access to the river from the riverside path. The project includes connections between the existing riverside paths and the Trolley Trail. The project also proposes realigning, widening, and paving (with permeable pavement) a portion of the Trolley Trail extending through Milwaukie Bay Park, providing access from communities north and south along the six-mile trail and beyond. All proposed walkways will meet relevant design and accessibility requirements.

F. Emphasis on water-oriented and recreational uses;

Response: The project contains numerous proposed improvements to enhance recreational uses. These include a playground, interactive water feature (splash pad), fire pit, bicycle parking, walking and biking paths, picnic areas, open space, and a restroom. Additionally, the project is designed to frame and accentuate views of the river, and it retains existing access to the Willamette River from the riverside trail via the stone steps constructed as part of a 2018 project. No limitations to or modifications of the boat ramp constructed in 2015 are included in this project, protecting a popular access point that creates a strong water/recreation orientation on site today.

G. Maintain or increase views between the Willamette River and downtown;

Response: Existing views between the Willamette River and downtown will be maintained with this project. The aboveground features, including the restroom structure which is the only building proposed and is under 11 feet tall, will result in negligible impacts to views between the Willamette River and downtown. Proposed landscaping at the site has been designed to accentuate and frame views, highlighting the natural features of the Willamette River and its surrounding areas. The proposed landscaping, which includes tree plantings, has been planned thoughtfully to frame views as vegetation matures.

H. Protection of the natural environment according to regulations in Section 19.402;

Response: The proposed action will comply with natural resource and environmental protections in the City of Milwaukie including those in Section 19.402. For more information on compliance with the natural resource protections of MMC 19.402, please refer to the Natural Resources Review report in Appendix D of this application.

I. Advice and recommendations of the Design and Landmark Committee, as appropriate;

Response: The Design and Landmark Committee was established to advise the Planning Commission on all matters specified in Section 2.16.010.A.9 through 2.16.010.A.12 which includes historic preservation, compliance with the Historic Resources Element of the Comprehensive Plan, recommendations related to compliance with design guidelines, and recommendations related to design review processes and procedures. The applicant will respond to any advice and recommendations made by the Design and Landmark Committee following their review, as appropriate.

J. Conformance to applicable Comprehensive Plan policies;

Response: As described in the response to 19.905.4.A.6 above, the proposed project is consistent with Milwaukie's Downtown and Riverfront Land Use Framework Plan (last updated 2015). It is also consistent with other goals and policies of the of the Comprehensive Plan, including the overarching goal of the Parks and Recreation (Chapter 9) section and the policies of the Willamette Greenway chapter of the Plan (Chapter 4), including those related to natural resource protections, recreation, public access and view protection, and connections with downtown.

K. The request is consistent with applicable plans and programs of the Division of State Lands;

Response: The proposed project does not involve work below the ordinary high water (OHW) level of the Willamette River or within adjacent wetlands subject to Oregon Department of State Lands (DSL) permitting requirements under the Oregon Removal-Fill Law or state-owned aquatic lands leasing/registration programs.

L. A vegetation buffer plan meeting the conditions of Subsections 19.401.8.A through C.

19.401.8.A through C

A. A buffer strip of native vegetation shall be identified along the river, which shall include the land area between the river and a location 25 ft upland from the ordinary high water line. This area shall be preserved, enhanced, or reestablished, except for development otherwise allowed in this title, and subject to the requirements of Subsection 19.401.8.B below.

Response: A buffer strip of native vegetation was established along the river as part of earlier phases of development within Milwaukie Bay Park. Prior work has included shoreline grading, bank stabilization, and native plantings/vegetation enhancement below the existing riverside path. The proposed Phase 3 improvements will observe this buffer and will preserve the vegetation within it through impact avoidance. No native vegetation removal within the buffer is proposed with this project.

B. Prior to development (e.g., removal of substantial amounts of vegetation or alteration of natural site characteristics) within the buffer, a vegetation buffer plan for the buffer area shall be submitted for review and approval. The plan shall address the following areas and is subject to the following requirements:

a. Riverbank Stabilization: The plan shall identify areas of riverbank erosion, and provide for stabilization. Bioengineering methods for erosion control shall be used when possible. When other forms of bank stabilization are used, pocket plantings or other means shall be used to provide vegetative cover.

b. Scenic View Protection (Screening): The plan shall identify the impact of the removal or disturbance of vegetation on scenic views from the river, public parks, public trails, and designed public overlooks.

c. Retain Existing Native Vegetation and Large Trees: The plan shall provide for the retention of existing large trees and existing native vegetation, including small trees, ground covers, and shrubs, within the vegetation buffer area. Removal of native vegetation and large trees is allowed pursuant to the following standards:

i. Large trees that are diseased, dead, or in danger of falling down may be removed if there is a clear public safety hazard or potential for property damage,

ii. Grading or tree removal is allowed in conjunction with establishing a permitted use. Only the area necessary to accommodate the permitted use shall be altered.

iii. Tree and vegetation removal may be allowed to create 1 view window from the primary residential structure to the river when suitable views cannot be achieved through pruning or other methods. The width of a view window may not exceed 100 ft or 50% of lineal waterfront footage, whichever is lesser. The applicant must clearly demonstrate the need for removal of trees and vegetation for this purpose.

d. Restore Native Vegetation: The plan shall provide for restoring lands within the buffer area which have been cleared of vegetation during construction with native vegetation.

e. Enhance Vegetation Buffer Area: The plan may provide for enhancing lands within the buffer area. Regular pruning and maintenance of native vegetation shall be allowed. Vegetation that is not native, except large trees, may be removed. New plant materials in the buffer strip shall be native vegetation.

f. Security that the Plan will be Carried Out: The approved vegetation buffer shall be established, or secured, prior to the issuance of any permit for development.

Response: The proposed project does not involve removal of vegetation or alteration of natural site characteristics within the vegetated buffer. The project recognizes the buffer established during previous phases of park development and intentionally avoids impacting that area. This standard therefore does not apply.

C. The vegetation buffer requirements shall not preclude ordinary pruning and maintenance of vegetation in the buffer strip.

Response: This criterion is acknowledged, and the proposed project will not place additional restrictions on ordinary pruning or vegetation maintenance.

Natural Resources (19.402)

The proposed park improvements would result in a permanent disturbance of areas designated as Water Quality Resource (WQR) and Habitat Conservation Area (HCA), which require review under MMC 19.402. Appendix D of this application contains a Natural Resource Review report that provides an impact evaluation, alternatives analysis, and mitigation proposal and addresses the applicable review criteria of MMC 19.402. Please refer to the report in Appendix D.

SUPPLEMENTARY DEVELOPMENT REGULATIONS (MMC 19.500)

Site Design Standards (19.504)

19.504.9.E On-Site Walkways and Circulation – Design Standards

Walkways shall be constructed with a hard surface material, shall be permeable for stormwater, and shall be no less than 5 ft in width. If adjacent to a parking area where vehicles will overhang the walkway, a 7-ft-wide walkway shall be provided. The walkways shall be separated from parking areas and internal driveways using curbing, landscaping, or distinctive paving materials. On-site walkways shall be lighted to an average .5-footcandle level. Stairs or ramps shall be provided where necessary to provide a direct route.

Response: All walkways proposed with this project will be constructed using a hard surface material and will range from 6 to 10 feet in width. Walkways along the southern portion of the project site, adjacent to the parking areas and internal driveways, will be separated from the parking and driving areas using both 6-inch raised and flush curbs. Permeable pavement is proposed for the Trolley Trail improvements proposed with this project. Permeable pavement is not proposed for other walkways, and as such, the walkways and a proposed alternative stormwater management approach are further addressed in the Variance Request section of this application.

Walkways that comprise the Riverside Pathway (along the western boundary of the project site) will be lit to calculated average of 0.5 footcandles with a maximum of 5.2 footcandles immediately surrounding the light sources. Lighting along the Riverside Pathway will be provided by existing bollard lights.

Walkways along the Trolley Trail (near the eastern boundary of the project site) will be lit to a calculated average of 1.0 footcandles with a maximum of 5.3 footcandles immediately surrounding the light sources. Lighting along the Trolley Trail will be provided by existing light posts, two relocated light posts, and two new light posts. The relocated and new light posts were included in project designs to better distribute lighting along the trail.

Internal pathways between the Riverside Pathway and the Trolley Trail will not be illuminated. The internal pathways have been designed to provide access from the Riverside Pathway, Trolley Trail, and public sidewalks adjacent to Milwaukie Bay Park to the various improvements and amenities proposed in the project design. These internal pathways are intended to complement design elements and are not intended to serve as the primary pedestrian thoroughfares through the park. The internal pathways serve as redundant access routes that ultimately provide access to the same locations as the illuminated walkways on the Riverside Pathway and Trolley Trail.

Additionally, MMC 19.402 (Natural Resources) includes development standards that state a preference for minimizing lighting into WQR and HCA areas where practicable, including:

- ***19.402.11.A.9 and 19.402.11.B.10: Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.***

- ***19.402.11.E.4 (Walkways and Bike Paths): Where practicable, any lights associated with the walkway or bike path shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.***

The proposed lighting plan recognizes these standards by avoiding unnecessary and redundant lighting on interior walkways. Lighting details are provided on the electrical drawings in Appendix C of this application.

Downtown Building and Site Design Standards (19.508)

The restroom structure proposed with this project is subject to Downtown Design Review, specifically for the following standards of MMC 19.508.4 for weather protection, exterior building materials, windows and doors, and roofs and rooftop equipment. Architectural drawings for the restroom building are included in the plans in Appendix C of this application.

19.508.4.C Weather Protection

1. **Purpose**
    a. **Create an all-season pedestrian environment.**
2. **Weather Protection Required**
    a. **All buildings shall provide weather protection for pedestrians as follows:**
        i. **Minimum Weather Protection Coverage**
            1. **All ground-floor building entries shall be protected from the weather by canopies or recessed behind the front building façade at least 3 ft.**

Response: The restroom structure roof will include a canopy that extends 4 feet out from the building over the restroom entry. This standard is met.

            2. **Permanent awnings, canopies, recesses, or similar weather protection shall be provided along at least 50% of the ground-floor elevation(s) of a building where the building abuts a sidewalk, civic space, or pedestrian accessway.**

Response: The roof canopy will cover 100% of the ground-floor elevation areas that abut the pedestrian accessway adjacent to the restroom structure. This standard is met.

            3. **Weather protection used to meet the above standard shall extend at least 4 ft, and no more than 6 ft, over the pedestrian area, and a maximum of 4 ft**

into the public right-of-way. Balconies meeting these dimensional requirements can be counted toward this requirement.

Response: The roof canopy used to provide weather protection will extend 4 feet over the pedestrian area at the front of the building. The building and canopy do not extend into the public right-of-way. This standard is met.

4. In addition, the above standards do not apply where a building has a ground-floor dwelling, as in a mixed-use development or live-work building, and the dwelling entrance has a covered entrance.

Response: The restroom structure will not contain any dwelling. This standard does not apply.

ii. Weather Protection Design

1. Weather protection shall comply with applicable building codes and shall be designed to be visually compatible with the architecture of a building. Where applicable, weather protection shall be designed to accommodate pedestrian signage (e.g., blade signs) while maintaining required vertical clearance.

Response: The weather protection has been designed to meet applicable building codes and will be compatible with the architecture of the restroom structure, as shown on the architectural plans included with this application. No signage is proposed on the restroom. This standard is met.

19.508.4.D Exterior Building Materials

1. Purpose

a. To encourage the construction of attractive buildings with materials that evoke a sense of permanence and are compatible with downtown Milwaukie and the surrounding built and natural environment.

2. Exterior Wall Standards

a. The following standards are applicable to the street-facing façades of all new buildings. For the purposes of this standard, street-facing façades are those abutting streets, courtyards, and/or public squares in all of the downtown. Table 19.508.4.D specifies the primary, secondary, and prohibited material types referenced in this standard.

i. Buildings shall utilize primary materials for at least 65% of each applicable building façade.

Response: The restroom structure exterior walls are proposed to be built of cast-in-place board-formed concrete and cedar slats. Finished metal panels will be located along the roofline of the entire building perimeter to accommodate ventilation. According to Table 19.508.4.D, all proposed materials are approved for building façades. Finished wood (cedar slats) is approved as

a primary material and concrete and finished metal are secondary materials. The finished wood cedar slats will comprise 65% of the street facing façade. This standard is met.

ii. Secondary materials are permitted on no greater than 35% of each applicable building façade.

Response: Cast-in-place board-formed concrete and finished metal (secondary materials) will comprise 35% of the street facing façade. This standard is met.

iii. Accent materials are permitted on no greater than 10% of each applicable building façade as trims or accents (e.g. flashing, projecting features, ornamentation, etc.).

Response: No accent materials are proposed as part of the building facade. This standard is met.

iv. Buildings shall not use prohibited materials on any exterior wall, whether or not it is a street-facing façade.

Response: No prohibited materials will be used on any exterior wall of the restroom building. This standard is met.

19.508.4.E Windows and Doors

1. Purpose

a. To enhance street safety and provide a comfortable pedestrian environment by adding interest to exterior façades, allowing for day lighting of interior space, and creating a visual connection between interior and exterior spaces.

2. Main Street

a. For block faces along Main St, 50% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors. The ground-floor street wall area is defined as the area up to the finished ceiling height of the space fronting the street or 15 ft above finished grade, whichever is less.

Response: The restroom building is not situated along Main Street. This standard does not apply.

3. Other Streets

a. For all other block faces, the exterior wall(s) of the building facing the street/sidewalk must meet the following standards:

i. 40% of the ground-floor street wall area must consist of openings; i.e., windows or glazed doors.

ii. Along McLoughlin Blvd the required coverage is 30%.

Response: The restroom structure faces SE McLoughlin Blvd, and as such, this standard would require 30% of the building facing the street to be windows. However, as the proposed structure is a restroom – and not a building such as a retail space where a visual connection between exterior and interior spaces is desired - no ground floor windows are proposed.

To address the purpose of the window standard as it would apply to a restroom in a park, which is to allow for daylighting of interior space, two skylights are included in the design to provide natural light while maintaining privacy for users of the restroom building. Downtown Design Guidelines regarding windows are related specifically to retail business and residences and do not apply to the proposed restroom building.

4. Upper Level

a. Along all block faces, the following standards are applicable on the upper-level building façades facing a street or public space.

b. Upper building stories shall provide a minimum of 30% glazing. For the purposes of this standard, minimum glazing includes windows and any glazed portions of doors.

c. The required upper-floor window/door percentage does not apply to floors where sloped roofs and dormer windows are used.

d. A minimum of 60% of all upper-floor windows shall be vertically oriented. This vertical orientation applies to grouped window arrays as opposed to individual windows.

Response: The restroom will be a single-story building and will not have an upper level. This standard does not apply.

5. General Standards

a. Windows shall be designed to provide shadowing. This can be accomplished by recessing windows 4 in into the façade and/or incorporating trim of a contrasting material or color.

b. All buildings with nonresidential ground-floor windows must have a visible transmittance (VT) of 0.6 or higher.

c. Doors and/or primary entrances must be located on the street-facing block faces and must be unlocked when the business located on the premises is open. Doors/entrances to second-floor residential units may be locked.

d. The bottom edge of windows along pedestrian ways shall be constructed no more than 30 in above the abutting walkway surface.

e. Ground-floor windows for nonresidential buildings shall allow views into storefronts, working areas, or lobbies. No more than 50% of the window area may be covered by interior furnishings including, but not limited to, curtains, shades, signs, or shelves.

f. Signs are limited to a maximum coverage of 20% of the required window area.

Response: As outline above, the restroom structure will not have windows given its need for privacy and the nature of its location and use. Doors to the restroom will be located on the street-facing façade of the structure and will be unlocked during operating hours.

6. Prohibited Window Elements

a. For all building windows facing streets, courtyards, and/or public squares in the downtown, the following window elements are prohibited:

i. Reflective, tinted, or opaque glazing.

ii. Simulated divisions (internal or applied synthetic materials).

iii. Exposed, unpainted metal frame windows.

Response: The proposed design does not include any prohibited window elements. This standard is met.

19.508.4.F Roofs and Rooftop Equipment

1. Purpose

a. To create a visually interesting condition at the top of the building that enhances the quality and character of the building.

2. Roof Forms

a. The roof form of a building shall follow one (or a combination) of the following forms:

i. Flat roof with parapet or cornice.

ii. Hip roof.

iii. Gabled roof.

iv. Dormers.

v. Shed roof.

b. All flat roofs, or those with a pitch of less than 4/12, shall be architecturally treated or articulated with a parapet wall that projects vertically above the roofline at least 12 in and/or a cornice that projects from the building face at least 6 in.

c. All hip or gabled roofs exposed to view from adjacent public or private streets and properties shall have a minimum 4/12 pitch.

d. Sloped roofs shall have eaves, exclusive of rain gutters, that project from the building wall at least 12 in.

e. When an addition to an existing structure, or a new structure, is proposed in an existing development, the roof forms for the new structure(s) shall have similar slope and be constructed of the same materials as the existing roofing.

Response: The proposed roof form of the building is a shed roof. There are no existing buildings in the immediate vicinity of the proposed restroom. This standard is met.

3. Rooftop Equipment and Screening

a. The following rooftop equipment does not require screening:

i. Solar panels, wind generators, and green roof features.

ii. Equipment under 2 ft high, if set back a minimum of 5 ft from the outer edge of the roof.

b. Elevator mechanical equipment may extend above the height limit a maximum of 16 ft, provided that the mechanical shaft is incorporated into the architecture of the building.

c. Satellite dishes, communications equipment, and all other roof-mounted mechanical equipment shall be limited to 10 ft high, shall be set back a minimum of 10 ft from the roof edge, and shall be screened from public view and from views from adjacent buildings by one of the following methods:

i. A screen around the equipment that is made of a primary exterior finish material used on other portions of the building, wood fencing, or masonry.

ii. Green roof features or regularly maintained dense evergreen foliage that forms an opaque barrier when planted.

d. Required screening shall not be included in the building's maximum height calculation.

Response: The proposed restroom building will have no equipment on the roof. This standard does not apply.

4. Rooftop Structures

a. Rooftop structures related to shared outdoor space—such as arbors, trellises, or porticos related to roof decks or gardens—shall not be included in the building's maximum height calculation, as long as they do not exceed 10 ft high.

Response: The proposed restroom building will have no structures on the roof. This standard does not apply.

PARKING STANDARDS (MMC 19.600)

Parks are subject to the off-street parking requirements of MMC 19.600. However, off-street vehicle parking for Milwaukie Bay Park, which is located on the southern portion of the park, was developed as part of an earlier phase of park improvements. No additional vehicle parking is required or proposed as part of the Phase 3 park improvements.

Bicycle parking requirements are listed in **MMC 19.609** and addressed below.

19.609.2 Quantity of Spaces

A. The quantity of required bicycle parking spaces shall be as described in this subsection. In no case shall less than 2 spaces be provided.

a. Unless otherwise specified, the number of bicycle parking spaces shall be at least 10% of the minimum required vehicle parking for the use.

b. The number of bicycle parking spaces at transit centers shall be provided at the ratio of at least 1 space per 100 daily boardings.

c. Multifamily residential development with 4 or more units shall provide 1 space per unit.

Response: Milwaukie Bay Park contains 38 total off-street vehicle parking spaces in two lots constructed during an earlier phase of work at the park. The north lot includes 17 spaces. The south lot, which is shared with Water Environmental Services (WES), who operates the adjacent Kellogg Water Resource Recovery Facility, includes 21 spaces. With 38 total vehicle parking spaces, the minimum number of required bicycle parking spaces for the park is four.

During the April 28, 2022, pre-application meeting and in the Pre-Application Summary Report (Appendix A), the City encouraged the NCPRD team to provide ample bike parking in the park as part of this project, to help accommodate large events at the park and in recognition of the City's efforts to promote alternative modes of transportation throughout the City. The proposed design includes 18 bike parking spaces with 6 spaces located on the south side of the amphitheater and 12 spaces located in the plaza near Monroe Street. This standard is met.

B. Covered or enclosed bicycle parking. A minimum of 50% of the bicycle spaces shall be covered and/or enclosed (in lockers or a secure room) in any of the following situations

a. When 10% or more of vehicle parking is covered.

b. If more than 10 bicycle parking spaces are required.

c. Multifamily residential development with 4 or more units.

Response: None of the vehicle parking spaces are covered, and the site does not contain any multifamily residential developments. Although the project proposes more than 10 bicycle

parking spaces, the code only requires four spaces for the site. Therefore, this standard does not apply.

19.609.3 Space Standards and Racks

A. The dimension of each bicycle parking space shall be a minimum of 2 x 6 ft. A 5-ft-wide access aisle must be provided. If spaces are covered, 7 ft of overhead clearance must be provided. Bicycle racks must be securely anchored and designed to allow the frame and 1 wheel to be locked to a rack using a high security, U-shaped, shackle lock.

Response: The proposed bicycle parking will be designed to meet the dimensions of this standard. Covered spaces are not proposed. This standard will be met.

B. Lighting shall conform to the standards of Subsection 19.606.3.F, which state:

> **Lighting is required for parking areas with more than 10 spaces. The Planning Director may require lighting for parking areas of less than 10 spaces if the parking area would not be safe due to the lack of lighting. Lighting shall be designed to enhance safe access for vehicles and pedestrians on the site, and shall meet the following standards:**
>
> **1. Lighting luminaires shall have a cutoff angle of 90 degrees or greater to ensure that lighting is directed toward the parking surface.**
>
> **2. Parking area lighting shall not cause a light trespass of more than 0.5 footcandles measured vertically at the boundaries of the site.**
>
> **3. Pedestrian walkways and bicycle parking areas in off-street parking areas shall have a minimum illumination level of 0.5 footcandles, measured horizontally at the ground level.**
>
> **4. Where practicable, lights shall be placed so they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.**

Response: This standard applies to bicycle parking in off-street vehicle parking areas. The proposed project does not add bicycle parking to vehicle parking areas. Six bicycle parking spaces are proposed on the south side of the amphitheater, and 12 bicycle parking spaces are proposed in the plaza near Monroe Street. The 12 spaces in the Monroe Plaza will have lighting that will meet the 0.5 footcandle standard for pedestrian walkways and bicycle parking areas, as shown on the electrical/lighting plans included in Appendix C of this application. The lighting for that area will not shine directly into WQR or HCA. The relevant parts of this standard will be met.

19.609.4 Location

A. Bicycle parking facilities shall meet the following requirements:

a. Located within 50 ft of the main building entrance.

b. Closer to the entrance than the nearest non-ADA designated vehicle parking space.

c. Designed to provide direct access to a public right-of-way.

d. Dispersed for multiple entrances.

e. In a location that is visible to building occupants or from the main parking lot.

f. Designed not to impede pedestrians along sidewalks or public rights-of-way.

g. Separated from vehicle parking areas by curbing or other similar physical barriers.

Response: The bicycle parking spaces proposed near the amphitheater and the plaza near Monroe Street are intended to accommodate users of the overall park and not provide parking specific to any building; therefore, the standards related to building entrances do not apply. The proposed bicycle parking is situated so that it will not impede pedestrians along sidewalks or in public right-of-way. This standard is met.

B. The public right-of-way may be utilized for bicycle parking when parking cannot be reasonably accommodated on the site and the location is convenient to the building's front entrance. The bicycle parking area in the right-of-way must leave a clear, unobstructed width of sidewalk that meets the Engineering Department's Public Works Standards for sidewalk passage. See Figure 19.609 for illustration of space and locational standards. A right-of-way permit is required.

Response: The project will not add bicycle parking to the right-of-way. This standard does not apply.

VARIANCE REQUEST (MMC 19.911)

The On-Site Walkway and Circulation design standards of MMC 19.504.9.E prescribe that "walkways…shall be permeable for stormwater." The proposed Trolley Trail will be constructed with porous asphalt, and the proposed playground area surfacing will be constructed with pervious materials. However, the remainder of the site walkways are proposed to be constructed of impervious pavement; therefore, a variance from the permeable pavement standard is requested.

The approval criteria for a variance request are listed and addressed below.

19.911.4 Approval Criteria

B. Type III Variances

An application for a Type III variance shall be approved when all of the criteria in either Subsection 19.911.4.B.1 or 2 have been met. An applicant may choose which set of criteria to meet based upon the nature of the variance request, the nature of the development proposal, and the existing site conditions.

Response: This variance request is based on the discretionary relief criteria in 19.911.4.B.1 below.

1. **Discretionary Relief Criteria**

   a. **The applicant's alternatives analysis provides, at a minimum, an analysis of the impacts and benefits of the variance proposal as compared to the baseline code requirements.**

   Response: The stormwater management approach and the pervious pavement variance proposed with this application are based on an analysis of existing site conditions and a comparison of infiltration vs. filtration treatment approaches. Details on the basis for the proposed stormwater management approach are provided in the *Preliminary Stormwater Management Report* prepared in support of this application by Zucker Engineering and Design, dated June 2022 (see Appendix E), with key details summarized below.

   A soils evaluation and infiltration testing documented by Hart Crowser in 2018 and 2022 revealed the site to be blanketed with 1 to 3 feet of fill, with variable but generally low infiltration rates. Four of five shallow infiltration tests (depths of 2 to 3 feet) performed across the site in 2022 indicated infiltration rates of less than 1 inch per hour. A fifth test performed on the upper part of the site near SE McLoughlin Blvd. showed much higher rates of 13 inches per hour.

   Pervious asphalt is proposed for the Trolley Trail portion of the project, since it is located in an area where infiltration rates were found to be high and suitable for pervious pavement. Impervious pavement draining to a vegetated surface facility (grassy swale) for filtration is proposed for the other walkways on the site.

Pervious pavement was considered for the other walkways on the site, weighing the impacts and benefits of attempting to rely on pervious pavement versus allowing water to shed from the impervious paths to a vegetated swale designed to accommodate it. Both approaches could meet City stormwater management requirements. The proposed approach to use impervious concrete for the majority of the site walkways and provide surface treatment facilities is preferred for several reasons, including the following:

- The site has generally poor infiltration rates that are not conducive to infiltration-type stormwater facilities. If adequate infiltration is not achieved and infiltration facilities do not function as designed, there is a potential for untreated runoff to enter the Willamette River. Incorporation of vegetated treatment facilities that rely on filtration rather than infiltration should provide more reliable and consistent stormwater treatment.
- Vegetated facilities provide treatment performance similar to permeable pavement in suitable conditions, but vegetated facilities provide additional benefits that permeable pavement does not provide, including:

  - Vegetated facilities provide an additional 'green' aesthetic.

  - At the Milwaukie Bay Park site, the proposed grassy swale will provide additional function as a barrier to geese.

  - The prevailing understanding is that vegetated stormwater facilities improve or maintain infiltration capacity over time because of root growth.

  - Microbial communities associated with root systems provide soil microbe diversity and help fix atmospheric carbon and nitrogen, and are known to break down pollutants including hydrocarbons.

- Typical concrete is more durable than permeable concrete, particularly as it relates to shear strength. The geotechnical investigation completed for this project suggests a modest settlement potential. Pavement that has cracked, settled, or otherwise degraded can present safety concerns for pedestrians, particularly those with mobility challenges. Under conditions with moderate settlement potential, typical concrete would likely outperform permeable concrete, and settled concrete joints and panels on typical concrete would be easier to repair via grinding.

- Permeable concrete requires effective maintenance over time to perform as expected. Permeable concrete at this site would be maintained; however, when particulate matter accumulates in voids over time from natural causes despite ongoing maintenance, there is a greater chance of decreasing performance. At many sites, this is not a concern that exceeds benefits, but at this site where there is low infiltration and sensitive water resources, it is important to have systems that will ensure that clogging and decreased performance over time will be less likely.

b. The proposed variance is determined by the Planning Commission to be both reasonable and appropriate, and it meets one or more of the following criteria:

(1) The proposed variance avoids or minimizes impacts to surrounding properties.

Response: The proposed variance avoids impacts to surrounding properties. Stormwater runoff from the proposed impervious concrete walkways would be captured and treated on-site through surface vegetated filtration facilities. The proposed grassy swale is designed to meet stormwater management requirements adopted by the City of Milwaukie in the form of the City of Portland's Stormwater Management Manual, and it is sized with adequate capacity to meet freeboard requirements during the peak 25-year flow event. The proposed use of impervious pavement and vegetated surface filtration facilities would not adversely impact surrounding properties through water quality or water quantity concerns. The project site's location adjacent to the Willamette River exempts it from on-site flow control requirements.

(2) The proposed variance has desirable public benefits.

Response: Typical impervious concrete is a durable, stable, all-weather material that provides a safe pedestrian travel surface over the long-term. It is generally less prone to weather-related damage and/or other degradation than pervious pavement, especially at sites where low infiltration rates are a concern. The proposed variance would benefit the public users of the park walkways by providing a more durable walking surface than permeable pavement.

(3) The proposed variance responds to the existing built or natural environment in a creative and sensitive manner.

Response: The proposed use of typical impervious concrete for most site walkways rather than permeable pavement is a direct response to existing soil conditions at the site, which have generally poor infiltration capacity as determined through infiltration testing. The proposed stormwater management approach incorporates a surface vegetated treatment facility that is sensitive to environmental conditions at the site (i.e., a non-structural approach to treatment) and provides creative secondary functions in the form of a vegetated barrier between lawn and path that is intended to deter geese, increase plantings, and increase the aesthetic quality of the site.

c. Impacts from the proposed variance will be mitigated to the extent practicable.

Response: The potential for adverse impacts from not infiltrating stormwater within the walkway footprints will be avoided and fully mitigated by capturing walkway runoff and treating it on-site in compliance with the City's stormwater standards, using a vegetated facility that is sized and designed in accordance with City of Portland Stormwater Management Manual requirements.

PUBLIC FACILITY IMPROVEMENTS (MMC 19.700)

The proposed project to construct new park improvements at Milwaukie Bay Park will intensify the current uses of the park and is projected to result in a projected increase in vehicle trips to the site. Accordingly, the agency notification requirements for public facility improvements apply to the project as outlined in MMC 19.707.1.

As stated in the pre-application report summary (Appendix A), the project will not require a Transportation Facilities Review (MMC 19.703) or a Transportation Impact Study (MMC 19.704), and it will not trigger the Rough Proportionality requirements of MMC 19.705 or the Transportation Requirements of MMC 19.708.

19.707.1 - Agency Notification

In addition to the general notice provisions set forth in Chapter 19.1000 for land use applications, the City shall provide notice of applications that are subject to Chapter 19.700 to the following agencies:

1. **Oregon Department of Transportation (ODOT): If the proposed development generates more than 100 vehicle trips per day, is within 200 ft of a State highway, or is within 1,320 ft of a State highway interchange ramp.**

Response: The project is located along Oregon Route 99 East; accordingly, ODOT will be notified.

2. **ODOT Rail Division: If the proposed development is within 300 ft of a public railroad crossing or if a modification is proposed to an existing public railroad crossing. Private crossing improvements are subject to review and licensing by the private rail service provider.**

Response: The project is not located within the vicinity of any public railroad.

3. **Metro and Clackamas County: If the proposed development is within 200 ft of a designated arterial or collector roadway, as identified in Figure 8-1 of the TSP.**

Response: The site is located within 200-feet of a designated arterial or collector roadway; as such, Metro and Clackamas County will be notified.

4. **Metro: If the proposed development is within 200 ft of a designated regional multiuse trail, as identified in the Regional Transportation Plan.**

Response: The project site is transected by the Trolley Trail, a designated regional multiuse trail. As such, Metro will be notified.

5. **TriMet: If the proposed development (excluding single-family development on an existing lot) is within 200 ft of an existing or proposed transit route as identified on the current TriMet service map and Figure 7-3 of the TSP.**

Response: The site is located within 200 feet of existing transit routes, so TriMet will be notified.

Utility Requirements (MMC 19.709)

Response: The project will involve new connections to existing City utilities including water and sewer; as such, a right-of-way permit will be applied for and system development charges will be required for the new connections.

FLOOD HAZARD AREA (MMC 18)

Development Permit (MMC 18.16.030)

A floodplain development permit must be obtained through application on forms furnished by the city engineer before construction or development begins within any area horizontally within the regulatory floodplain established in Section 18.12.020.A. The floodplain development permit is required for all structures, including manufactured dwellings, and for all other development, as defined in Chapter 18.08, including fill and other development activities.

Response: The proposed action at Milwaukie Bay Park occurs within the established regulatory floodplain. An application for a Floodplain Development Permit will be submitted to the City for the project.

Elevation Certificate (MMC 18.16.020)

A certification of elevation is required for all structures constructed within the regulatory floodplain.

Response: An elevation certificate will be required and obtained for the proposed restroom structure.

Compensatory Storage (MMC 18.20.020)

Balanced cut and fill is required for grading in the 1996 Flood Inundation Area.

The placement of fill or structures that displaces ten (10) cubic yards or less of flood storage area is exempt from the requirements of this Section 18.20.020.

Response: The majority of the project site falls within the 1996 Flood Inundation Area. A cut and fill analysis completed by the project civil engineer, based on the site grading plan, indicated that the project will result in a net cut of approximately 200 cubic yards of material in areas below the 36-foot base flood elevation. This analysis will be documented in the application for a Floodplain Development Permit.

Floodways (MMC 18.20.010.B)

A No-Rise Analysis must be submitted for all manmade development in the floodway.

Response: The United States Army Corps of Engineers operates a hydraulic model for the Lower Willamette River which shows the area of Milwaukie Bay Park as an ineffective flow area. This classification means that the hydraulic model assumes the area of Milwaukie Bay Park is only flood storage without any flood conveyance. Based on the results of this hydraulic model and the net cut affiliated with the proposed project, development at this site would result in a no-

rise condition. A No-Rise Analysis will be submitted to the City with the application for a Floodplain Development Permit.

PUBLIC PLACES (MMC 12)

Right of Way Permit

12.08.020.A Permit Required

No person shall commence or continue with any work in the right-of-way except as provided in this code and in compliance with Title 19, the Milwaukie Public Works Standards, and other applicable codes, rules and regulations, and design standards. As used in this chapter, "work" means any activity in the public rights-of-way resulting in physical change thereto, including the following:

1. **Excavation or placement of structures;**
2. **Any activity resulting in alteration of the surface of the right-of-way;**
3. **Pavement overlays;**
4. **New traffic control and changes to existing traffic control;**
5. **Drainage improvements;**
6. **New sidewalks and alterations to existing sidewalks;**
7. **New road construction;**
8. **Alteration of street configuration or geometry;**
9. **New traffic calming structures and alterations to existing traffic calming devices; and/or**
10. **New bicycle lanes or bicycle accommodations and alterations to existing bicycle lanes or accommodations.**

Response: According to the City of Milwaukie in the pre-application conference, a right-of-way permit is required to construct any connections and/or extensions of City utilities (sewer and/or water) and changes to on-site pedestrian and bicycle paths. As this project will include both of those elements, a right-of-way permit will be required and will be applied for.

Appendix A

Pre-Application Conference Report

Project ID: 22-001PA

CITY OF MILWAUKIE

May 12, 2022

Jonathan Beaver
160 NE Sixth Ave., Ste 200
Portland, OR 97232

Re: Preapplication Report

Dear Jonathan:

Enclosed is the Preapplication Report Summary from your meeting with the City on 04/28/2022, concerning your proposal for action on property located at 11211 SE McLoughlin Blvd.

A preapplication conference is required prior to submittal of certain types of land use applications in the City of Milwaukie. Where a preapplication conference is required, please be advised of the following:

- Preapplication conferences are valid for a period of 2 years from the date of the conference. If a land use application or development permit has not been submitted within 2 years of the conference date, the Planning Manager may require a new preapplication conference.
- If a development proposal is significantly modified after a preapplication conference occurs, the Planning Manager may require a new preapplication conference.

If you have any questions concerning the content of this report, please contact the appropriate City staff.

Sincerely,

Will First
Administrative Specialist II

CITY OF MILWAUKIE
6101 SE Johnson Creek Blvd
Milwaukie OR 97206
503.786.7600
planning@milwaukieoregon.gov
building@milwaukieoregon.gov
engineering@milwaukieoregon.gov

Preapplication Conference Report

Project ID: 22-001PA

This report is provided as a follow-up to the meeting that was held on 4/28/2022 at 10:00 AM

The Milwaukie Municipal Code is available here: www.qcode.us/codes/milwaukie/

APPLICANT AND PROJECT INFORMATION

Applicant:	Jonathan Beaver, 2.ink Studio	**Applicant Role:**	Project Designer
Applicant Address:	160 NE Sixth Ave, Ste 200, Portland, OR 97232		
Company:	2.ink Studio		
Project Name:	Milwaukie Bay Park Phase 3 Improvements		
Project Address:	1211 SE McLoughlin Blvd	**Zone:**	OS
Project Description:	Park improvements including: new restroom, interactive water feature, playground, picnic areas, gathering space, pathways, plantings		
Current Use:	Park		
Applicants Present:	Heather Koch (NCPRD), Jonathan Beaver (2.ink studio), Adam Zucker (Zucker Engineering), John Vlastelicia (ESA), Christopher Olin (2.ink studio), Kevin Cayson (NCPRD), Julia Warden (2.ink studio)		
Staff Present:	Vera Kolias, Steve Adams, Beth Britell, Samantha Vandagriff, Tessie Pentice, Seth Brumley (ODOT)		

PLANNING COMMENTS

Zoning Compliance (MMC Title 19)

☒	**Use Standards (e.g., residential, commercial, accessory)**	The Open Space Zone provides a specific zone to accommodate open space, park, and riverfront uses. Parks and open space are permitted uses. Some limited retail and restaurant uses are permitted as conditional uses (depending on the size).
☒	**Dimensional Standards**	Table 19.304.4 includes all applicable dimensional standards, including maximum building height of 15 ft.

Land Use Review Process

☒	**Applications Needed**	Downtown Design Review (Type I); Willamette Greenway Review (Type III); Natural Resources Review (Type III); Variance – if requested (Type III)
☒	**Fees**	• Type III = $2,000 per application • Type II = $1,000 • Type I = $200

		Note: For multiple applications, there is a 25% discount offered for each application fee beyond the most expensive one. For technical review of a Natural Resources review, a $3,000 deposit is required for review of the natural resources report by the city's environmental peer review consultant. The applicant is responsible for the final actual cost of the peer review, though the City will endeavor to have the consultant work within the initial deposit amount.
☒	**Review Type:** Choose an item.	• Willamette Greenway = Type III ($2,000) • Natural Resources Review = Type III ($1,500 w/ discount + $3,000 deposit) • Variance = Type III ($1,500 w/ discount—up to 3 variance requests per application) • Downtown Design Review = Type I ($150 w/ discount) or Type III if exception requested ($2,000)
Overlay Zones (MMC 19.400)		
☒	**Willamette Greenway (MMC 19.401)**	The entire site falls within the Willamette Greenway overlay. Land use actions and development within the Willamette Greenway overlay zone are conditional uses and so are subject to the provisions of MMC 19.905. Note that a conditional use permit will be provided upon approval and must be recorded with Clackamas County. In addition to the approval criteria for conditional uses that must be addressed (MMC 19.905.4.A), the Willamette Greenway criteria established in MMC 19.401.6 must also be addressed. There are no specific lighting requirements in the WG overlay.
☒	**Natural Resources (MMC 19.402)**	The proposal would result in permanent disturbance of significant areas of designated Water Quality Resource (WQR) and Habitat Conservation Area (HCA), which requires review under the applicable provisions of MMC 19.402. The process for discretionary review is established in MMC 19.402.12 and requires a technical report prepared by a qualified professional to provide an impact evaluation, alternatives analysis, and recommendation for mitigation of the proposed disturbance. For permanent impacts, the code allows off-site mitigation of HCA disturbance but requires a variance for off-site mitigation of WQR impacts. The Natural Resource review will follow a discretionary process, with the approval criteria being to demonstrate how the project avoids impacts where possible, minimizes impacts where unavoidable, and adequately mitigates for all impacts. There is no specific mitigation formula or ratio in the code, though some recently approved mitigation efforts have aimed at a ratio of 1.5:1 (area of mitigation to area of disturbance). The code's general recommendation for mitigation is related to the condition of the WQR area (Good, Marginal, or Poor—see MMC Table 19.402.11.C) and focuses on restoration with native species to provide significant vegetated cover and more than 50% tree canopy coverage. The proposed work in the WQR is described to be bank stabilization and restoration work, so specific descriptions will be necessary to adequately outline the benefits on the impact and purpose of the disturbance.
☐	**Historic Preservation**	
☐	**Flex Space Overlay**	
Site Improvements/Site Context		
☐	**Landscaping Requirements**	
☒	**Onsite Pedestrian/Bike Improvements (MMC 19.504, 19.606, and 19.609)**	19.504.9.E requires that walkways are permeable for stormwater. If the proposed design does not include this, then a Type III variance would be required.

		Please note the lighting standards in 19.504.9 and provide information showing compliance with these standards. Required bicycle parking, per the code, is established as a percentage of required vehicle parking spaces. In this case, the park improvements and associated bike parking would be calculated by the provided vehicle parking spaces at the park. However, staff notes that this is a regional park that is a destination and will be the host for numerous large events throughout the year. The park is adjacent to the Trolley Trail and parking is limited. The city is actively promoting alternative modes of transportation throughout the city and wants to see a substantial number of bike parking racks/spaces at the park. The applicant is encouraged to provide ample bike parking throughout the park.
☐	**Connectivity to surrounding properties**	
☐	**Circulation**	
☐	**Building Design Standards (MMC 19.505)**	
☒	**Downtown Design Standards (MMC 19.508)**	As new development downtown, the restroom building is subject to Downtown Design Review and the procedures of MMC 19.907. If the project can meet all of the applicable design standards established in MMC 19.508, the design review portion of the project will be subject to the clear and objective Type I review process as part of the overall Type III land use review. The restroom is subject to Type I Downtown Design Review (if it meets the design standards in 1.508). The building is subject to the following standards: • Weather Protection • Exterior Building Materials • Windows and Doors • Roofs and Rooftop Equipment Staff notes that it appears that the building will meet the exterior building materials standard, but the application will have to show compliance. It does not appear that weather protection has been proposed in the design and this will need to be addressed in the application. Similarly, the design does not include any windows or glazing, and this will also need to be addressed in the application (perhaps some kind of opaque glazing can be used to meet the standard and still allow natural light into the restroom). If an exception to the design standards is sought, please refer to the section addressing 19.907.
Parking Standards (MMC 19.600)		
☐	**Residential Off-Street Parking Requirements**	
☒	**Multi-Family/Commercial Parking Requirements**	Parks are subject to off-street parking requirements. Parking has been provided as part of earlier phases of the park improvements. No additional vehicle parking is required as part of this phase.
Approval Criteria (MMC 19.900)		
☐	**Community Service Use (CSU) (MMC 19.904)**	
☒	**Conditional Use (MMC 19.905)**	Willamette Greenway review is a conditional use subject to the approval criteria in MMC 19.905.4.

☐	**Development Review (MMC 19.906)**	
☒	**Downtown Design Review (MMC 19.907)**	Variances cannot be granted for the design standards of Section 19.508. Projects that cannot meet the design standards in this section must be reviewed through a Type III downtown design review and demonstrate compliance with the Milwaukie Downtown Design Guidelines, pursuant to Section 19.907. An application for Type III downtown design review shall be approved when all of the following criteria have been met: 1. Compliance with Title 19. 2. Compliance with applicable design standards in Section 19.508. 3. Substantial consistency with the purpose statement of the applicable design standard and the applicable Downtown Design Guideline(s) being utilized in place of the applicable design standard(s). Downtown Design Guidelines document: https://www.milwaukieoregon.gov/sites/default/files/fileattachments/planning/page/42831/downtowndesignguidelines.pdf.
☒	**Variance (MMC 19.911)**	The applicant has indicated that a variance may be requested to the requirement for permeable paving for walkways. This variance request requires Type III review; up to 3 variance requests can be included in a single variance application (for that single application fee). MMC 19.911.4.B establishes approval criteria for Type III variances in general. The applicant may choose to use either the broadly applicable Discretionary Relief criteria or the more narrowly focused Economic Hardship criteria, though please note that the Economic Hardship criteria are quite stringent. Please review the approval criteria for Type III Variances and address them in the application materials regarding the requirements in 19.504.9.
	Land Division (MMC Title 17)	
☐	**Design Standards**	
☐	**Preliminary Plat Requirements**	
☐	**Final Plat Requirements (See Engineering Section of this Report)**	
	Sign Code Compliance (MMC Title 14)	
☒	**Sign Requirements**	MMC 14.16.060 establishes standards for the types of signs that are allowed in downtown zones including the OS zone. MMC 14.12.010 establishes the types of signs exempted from sign review. Please keep these standards in mind when finalizing the sign package for the park.
	Noise (MMC Title 16)	
☐	**Noise Mitigation (MMC 16.24)**	
	Neighborhood District Associations	
	Historic Milwaukie	

☒	Choose an item. Choose an item.	Any City-recognized neighborhood district association whose boundaries include the subject property or are within 300 ft of the subject property will receive a referral and the opportunity to provide comment on the application. Applicants are encouraged to meet with the NDA prior to application submittal: https://www.milwaukieoregon.gov/citymanager/historic-milwaukie-nda.
Other Permits/Registration		
☐	**Business Registration**	
☐	**Home Occupation Compliance (MMC 19.507)**	
Additional Planning Notes		
Prior to submitting the application, particularly if it will trigger a public hearing, the applicant is encouraged to present the project at a regular meeting of the Historic Milwaukie NDA, which occurs at 6:30 p.m. on the second Monday of every month at the Libbie's Restaurant (11056 SE Main St). Contact information: https://www.milwaukieoregon.gov/citymanager/historic-milwaukie-nda.	
ENGINEERING & PUBLIC WORKS COMMENTS		
Public Facility Improvements (MMC 19.700)		
☒	**Applicability (MMC 19.702)**	MMC 19.702 establishes the applicability of MMC 19.700, including partitions, subdivisions, replats, new construction, and modification and/or expansion of an existing structure or a change or intensification in use that results in a new dwelling unit, any new increase in gross floor area, and/or in any projected increase in vehicle trips. The proposed development to construct new park improvements will intensify the current use and have a projected increase in vehicle trips. MMC 19.700 applies.
☐	**Transportation Facilities Review (MMC 19.703)**	A Transportation Facilities Review (TFR) is not required.
☐	**Transportation Impact Study (MMC 19.704)**	A Transportation Impact Study (TIS) is not required.
☐	**Rough Proportionality (MMC 19.705)**	The subject property is developed as a public park. The requirements for right-of-way (ROW) dedication and street improvements are not proportional to the impacts resulting from the proposed development. Street improvements and ROW dedication are not required.
☒	**Agency Notification (MMC 19.707)**	The City shall provide notice to the following agencies: 1. Oregon Department of Transportation (ODOT) 2. Metro 3. Clackamas County 4. TriMet
☐	**Transportation Requirements (MMC 19.708)**	No transportation facilities are required. See Additional Notes section for comments and requirements for the proposed multi-use path outside of the Right-of-Way.
☒	**Utility Requirements (MMC 19.709)**	No additional public utility upgrades are required.

		A Right-of-Way permit and system development charges will be required for any new connections to City utilities. If the proposed development chooses to upgrade any existing facilities, a Right-of-Way permit will be required.
Flood Hazard Area (MMC 18)		
☒	**Development Permit (MMC 18.16.030)**	A Floodplain Development Permit will be required. FEMA Base Flood Elevation is 36' NAVD88. The boundary of the FEMA floodplain is not the 36' topographic contour.
☒	**Elevation Certificate (MMC 18.16.020)**	Elevation certificate will be required for all structures.
☐	**Nonresidential Construction (MMC 18.20.120)**	All nonresidential structures will be elevated to the Flood Protection Elevation (39.4' NAVD88) or floodproofed.
☒	**Compensatory Storage (MMC 18.20.020)**	Balanced cut and fill is required for grading in the 1996 Flood Inundation Area. The boundary of the 1996 Flood Inundation Area is not the 36' topographic contour, but it may be assumed to be the 36' topographic contour as this elevation encompasses the 1996 Flood Inundation Area.
☒	**Floodways (MMC 18.20.010.B)**	FEMA No-Rise Analysis submitted for all the manmade/development in the floodway. Plans currently show the following development in the floodway: Grading, Flatwork, Paving, Pedestrian Bridges, River View Seating, Event Stage, Special Event Fire Pit, Drop Off / Loading Area.
Environmental Protection (MMC 16)		
☐	**Weak Foundation Soils (MMC 16.16)**	
☐	**Erosion Control (MMC 16.28)**	
☐	**Tree Cutting (MMC 16.32)**	
Public Services (MMC 13)		
☒	**Water System (MMC 13.04)**	Connection and extension of City utilities is subject to plan and application review. Application for City uility billing connections hall be made on approved forms: https://www.milwaukieoregon.gov/building/water-connection-application A system development charge must be paid prior to new connections to city water. A right-of-way permit is required prior to new connections to city water.
☒	**Sewer System (MMC 13.12)**	Connection and extension of City utilities is subject to plan and application review. A system development charge must be paid prior to new connections to city sanitary sewer. A right-of-way permit is required prior to new connections to city sanitary sewer.
☒	**Stormwater Management (MMC 13.14)**	Stormwater mitigation must meet the city's NPDES permit through design of facilities according to the 2016 Portland Stormwater Management Manual. A system development charge must be paid prior to building permit issuance.

☒	**System Development Charge (MMC 13.28.040)**	All new development or intensification of use shall be subject to system development charges. Latest charges are determined by the Master Fee Schedule available here: https://www.milwaukieoregon.gov/finance/fees-charges
☐	**Fee in Lieu of Construction (MMC 13.32)**	

Public Places (MMC 12)

☒	**Right of Way Permit (MMC 12.08.020)**	A Right-of-Way permit is required to construct any connections and/or extensions of City utilities (such as sewer and/or water) and the on-site path and any other pedestrian/bicycle facilities.
☐	**Access Requirements (MMC 12.16.040)**	The proposed development does not include any alterations to the existing accessway.
☐	**Clear Vision (MMC 12.24)**	A clear vision area shall be maintained at all driveways and accessways.

Additional Engineering & Public Works Notes

Per ODOT comments, if the signal pole at SE Monroe Street/ OR 99E intersection will need to be relocated to accommodate the new Trolley Trail alignment, an ODOT permit will be required.

All new paths on park property shall be constructed of pervious pavement, a variance on this requirement will not be supported by engineering.

A City of Milwaukie Right-of-Way permit will be required for all on-site flat work (pathways) and all utility connections to City utilities (such as sewer/water). On-site storm mitigation plans will be reviewed during the building permit phase.

BUILDING COMMENTS

All drawings must be submitted electronically through www.buildingpermits.oregon.gov

New buildings or remodels shall meet all the provisions of the current applicable Oregon Building Codes. All State adopted building codes can be found online at: https://www.oregon.gov/bcd/codes-stand/Pages/adopted-codes.aspx.

All building permit applications are electronic and can be applied for online with a valid CCB license number or engineer/architect license at www.buildingpermits.oregon.gov . Each permit type and sub-permit type are separate permits and are subject to the same time review times and will need to be applied for individually. Plans need to be uploaded to their specific permits in PDF format as a total plan set (not individual pages) if size allows.

Note: Plumbing and electrical plan reviews (when required) are done off site and are subject to that jurisdiction's timelines. The City does not have any control over those timelines, so please plan accordingly.

Site utilities require a separate plumbing permit and will require plumbing plan review. **NOTE:** The grading plan submitted to the Engineering Department does not cover this review.

If you have any building related questions, please email us at building@milwaukieoregon.gov.

Additional Building Notes

Bathrooms will need to be ADA compliant.

OTHER FEES

☐	**Construction Excise Tax**	**Calculation:** Valuation *12% (.12)

	Affordable Housing CET – Applies to any project with a construction value of over 100,000.	
☐	**Metro Excise Tax** Metro – Applies to any project with a construction value of over $100,000.	**Calculation:** Valuation *.12% (.0012)
☐	**School Excise Tax** School CET – Applies to any new square footage.	**Calculation:** Commercial = $0.69 a square foot, Residential = $1.39 a square foot (not including garages)

FIRE DISTRICT COMMENTS

Please see the attached memorandum for fire district comments.

COORDINATION WITH OTHER AGENCIES

Applicant must communicate directly with outside agencies. These may include the following:

- Metro
- Trimet
- North Clackamas School District
- North Clackamas Parks and Recreation District (NCPRD)
- Oregon Parks and Recreation
- ODOT/ODOT Rail
- Department of State Lands
- Oregon Marine Board
- Oregon Department of Fish and Wildlife (ODOT)
- State Historic Preservation Office
- Clackamas County Transportation and Development

MISCELLANEOUS

	State or County Approvals Needed	
☐	**Boiler Approval (State)**	
☐	**Elevator Approval (State)**	
☐	**Health Department Approval (County)**	
	Arts Tax	
☐	**Neighborhood Office Permit**	
	Other Right-of-Way Permits	
☐	**Major:**	
☐	**Minor:**	

☐	**Painted Intersection Program Permits:**	
	☐ **artMOB Application**	
	☐ **Traffic Control Plan (Engineering)**	
☐	**Parklet:**	
	☐ **Parklet Application/ Planning Approval**	
	☐ **Engineering Approval**	
	☐ **Building Approval**	
☐	**Sidewalk Café:**	
☐	**Tree Removal Permit:**	

Infrastructure/Utilities

Applicant must communicate directly with utility providers. These may include the following:

- PGE
- NW Natural
- Clackamas River Water (CRW)
- Telecomm (Comcast, Century Link)
- Water Environmental Services (WES)
- Garbage Collection (Waste Management, Hoodview Disposal and Recycling)

Economic Development/Incentives

☐	**Enterprise Zone:**
☐	**Vertical Housing Tax Credit:**
☐	**New Market Tax Credits:**
☐	**Housing Resources:**

PLEASE SEE NOTE AND CONTACT INFORMATION ON THE FOLLOWING PAGE

This is only preliminary preapplication conference information based on the applicant's proposal, and does not cover all possible development scenarios. Other requirements may be added after an applicant submits land use applications or building permits. City policies and code requirements are subject to change. If a note in this report contradicts the Milwaukie Municipal Code, the MMC supersedes the note. If you have any questions, please contact the City staff that attended the conference (listed on Page 1). Contact numbers for these staff are City staff listed at the end of the report.

Sincerely,

City of Milwaukie Development Review Team

BUILDING DEPARTMENT

Samantha Vandagriff	Building Official	503-786-7611
Harmony Drake	Permit Technician	503-786-7623
Stephanie Marcinkiewicz	Inspector/Plans Examiner	503-786-7636

ENGINEERING DEPARTMENT

Steve Adams	City Engineer	503-786-7605
Jennifer Backhaus	Engineering Technician III	503-786-7608

PLANNING DEPARTMENT

Laura Weigel	Planning Manager	503-786-7654
Vera Kolias	Senior Planner	503-786-7653
Brett Kelver	Senior Planner	503-786-7657
Adam Heroux	Associate Planner	503-786-7658
Ryan Dyar	Assistant Planner	503-786-7661

COMMUNITY DEVELOPMENT DEPARTMENT

Joseph Briglio	Community Development Director	503-786-7616
Mandy Byrd	Development Programs Manager	503-786-7692
Janine Gates	Housing & Econ. Dev. Prog. Mgr.	503-786-7627
Emilie Bushlen	Administrative Specialist II	503-786-7600
Will First	Administrative Specialist II	503-786-7600

CLACKAMAS FIRE DISTRICT

Alex McGladrey	Lieutenant Deputy Fire Marshal	503-742-2662

Clackamas Fire District #1

Pre-Application Comments:

To: Vera Kolias, Senior Planner, City of Milwaukie

From: Alex McGladrey, Deputy Fire Marshal, Clackamas Fire District #1

Date: April 14, 2022

Re: 22-001PA, Development of Milwaukie Bay Park at 11211 Se McLoughlin Blvd

---

This review is based upon the current version of the Oregon Fire Code (OFC), as adopted by the Oregon State Fire Marshal's Office. The scope of review is typically limited to fire apparatus access and water supply, although the applicant must comply with all applicable OFC requirements. When buildings are completely protected with an approved automatic fire sprinkler system, the requirements for fire apparatus access and water supply may be modified as approved by the fire code official. The following items should be addressed by the applicant:

The Fire District has no comments for this proposal.

If you have any questions, please contact me at 503-742-2662 or alex.mcgladrey@clackamasfire.com

Link to Fire Code Application Guide:
********clackamasfire.com/wp-content/uploads/2021/05/Fire-Code-Applications-Guide-2021.pdf

Oregon
Kate Brown, Governor

Department of Transportation
Region 1 Headquarters
123 NW Flanders Street
Portland, Oregon 97209
(503) 731.8200
FAX (503) 731.8259

5/9/22 ODOT #12546

ODOT Response

Project Name: Milwaukie Bay Park	**Applicant:** Jonathan Beaver
Jurisdiction: City of Milwaukie	**Jurisdiction Case #:** 22-001PA
Site Address: 11211 SE McLoughlin Blvd, Milwaukie, OR	**Tax Lot(s):** Various
State Highway: OR 99E	**Mileposts:** 5.83

The site of this proposed land use action is adjacent to OR 99E ODOT has permitting authority for this facility and an interest in ensuring that this proposed land use is compatible with its safe and efficient operation. **Please direct the applicant to the District Contact indicated below to determine permit requirements and obtain application information.**

COMMENTS/FINDINGS

ODOT has reviewed the applicant's proposal to redevelop Milwaukie Bay Park including new restroom, interactive water feature, playground, picnicking areas, gathering space, Trolley Trail, secondary pathways, and planting. North Clackamas Parks and Recreation (NCPRD) has been coordinating closely with ODOT on the Trolley Trail/sidewalk design and right of way considerations. ODOT and NCPRD will continue to work together on the following items:

- Through the ODOT surplus process, ODOT sold a small piece of right of way to facilitate the park redevelopment. The conditions of that sale are:
  1. Agreement that SB (southbound) pedestrian facility will be continuously functional, serving 99E throughout park redevelopment and construction of replacement sidewalk.
  2. Agreement on maintenance of replacement sidewalk and existing sidewalk by Parks or ODOT.
  3. 4f boundary set back from sidewalk – sidewalk along highway will be for transportation use, not recreational.

  NCPRD and ODOT will work with the City to ensure those conditions are fulfilled.
- A signal pole at the SE Monroe Street/OR 99E intersection may need to be moved to accommodate the new Trolley Trail alignment. Moving the signal pole would likely trigger additional improvements such as upgrading the ADA ramps on all four corners of the intersection. ODOT will provide more information on those requirements as signal design plans are developed and reviewed.
- All alterations within the State highway right of way are subject to the ODOT Highway Design Manual (HDM) standards. Alterations along the State highway but outside of ODOT right-of-way may also be subject to ODOT review pending its potential impact to

safe operation of the highway. If proposed alterations deviate from ODOT standards a Design Exception Request must be prepared by a licensed engineer for review by ODOT Technical Services. Preparation of a Design Exception request does not guarantee its ultimate approval. Until more detailed plans have been reviewed, ODOT cannot make a determination whether design elements will require a Design Exception.

Note: Design Exception Requests may take up to 3 months to process.

All ODOT permits and approvals must reach 100% plans before the District Contact will sign-off on a local jurisdiction building permit, or other necessary requirement prior to construction.

ADVISORY INFORMATION

Frontage Improvements and Right of Way

☒ Curb, sidewalk, cross walk ramp(s) and bikeways shall be constructed as necessary to be consistent with local, ODOT and ADA standards.

Permits and Agreements to Work in State Right of Way

☒ An ODOT Miscellaneous Permit must be obtained for all work in the highway right of way. When the total value of improvements within the ODOT right of way is estimated to be $100,000 or more, an agreement with ODOT is required to address the transfer of ownership of the improvement to ODOT. An Intergovernmental Agreement (IGA) is required for agreements involving local governments and a Cooperative Improvement Agreement (CIA) is required for private sector agreements. The agreement shall address the work standards that must be followed, maintenance responsibilities, and compliance with ORS 276.071, which includes State of Oregon prevailing wage requirements.

Note: If a CIA is required, it may take up to **6 months** to process.

☒ The applicant must obtain an ODOT permit to place trees in the state right of way. Tree spacing and design must be consistent with the ODOT Highway Design Manual section 4.2.6 (http://www.oregon.gov/ODOT/Engineering/Documents_RoadwayEng/HDM_04-Cross-Sections.pdf.

If proposed tree placement deviate from ODOT standards (such as placement in a planter strip), a Design Exception Request for clear zone must be prepared by a licensed engineer for review by ODOT Technical Services. Preparation of a Design Exception request does not guarantee its ultimate approval.

Note: It may take up to **3 months** to process a Design Exception.

☒ Illumination within the ODOT right of way must be in accordance with AASHTO illumination standards and the ODOT Lighting Policy and Guidelines, which states that local jurisdictions must enter into an Intergovernmental Agreement (IGA) with ODOT wherein the local jurisdiction is responsible for installation, maintenance, operation, and energy costs.

☒ An ODOT Miscellaneous Permit is required for connection to state highway drainage facilities. Connection will only be considered if the site's drainage naturally enters ODOT right of way. The applicant must provide ODOT District with a preliminary drainage plan showing impacts to the highway right of way.

A drainage study prepared by an Oregon Registered Professional Engineer is usually required by ODOT if:

1. Total peak runoff entering the highway right of way is greater than 1.77 cubic feet per second; or
2. The improvements create an increase of the impervious surface area greater than 10,758 square feet.

Please send a copy of the Land Use Notice including conditions of approval to:

ODOT Region 1 Planning
Development Review
123 NW Flanders St
Portland, OR 97209

ODOT_R1_DevRev@odot.oregon.gov

Development Review Planner: Seth Brumley	Seth.A.Brumley@odot.oregon.gov
Traffic Contact: Avi Tayar, P.E.	Abraham.TAYAR@odot.oregon.gov
District Contact: District 2B	D2BUP@odot.oregon.gov

Appendix B

Project Area Map

SOURCE: ESA, 2021; ESRI, 2022; METRO RLIS, 2022

Milwaukie Bay Park Phase 3 Improvements

Figure 1
Project Area

Appendix C

Design Drawings

MILWAUKIE BAY PARK

100% DESIGN DEVELOPMENT

June 03, 2022

PROPERTY ADDRESS: 11211 SE McLoughlin Blvd, Milwaukie, OR 97222

SHEET INDEX

NOT FOR CONSTRUCTION

2.ink Studio | Landscape Architecture
1816 NE Sixth Avenue, Suite 200
Portland, OR 97212
503.544.4643
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
OREGON

MILWAUKIE BAY PARK
100% Design Development
project address
DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW,JB

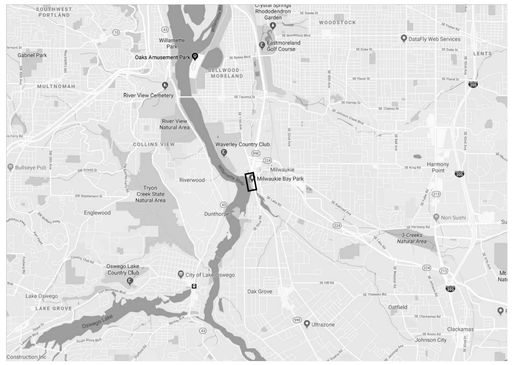
REVISIONS

DATE	DESCRIPTION	BY

COVER SHEET

G0.00

ONE INCH | DRAWING SIZ_ 24x36
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



VICINITY PLAN

N.T.S.

GENERAL PARK INFORMATION

ADDRESS:	11211 SE McLoughlin Blvd, Milwaukie, OR 97222
LEGAL DESCRIPTION:	Tax Lot: XXXXX
ZONING:	OS

BID ALTERNATE INFORMATION

ALTERNATE #1:
TRELLIS: WORK INCLUDES FOOTINGS, STRUCTURAL MEMBERS, AND FINISHES. WORK ALSO INCLUDES LIGHTING AND ELECTRICAL CONNECTIONS TO STRUCTURE.

ALTERNATE #2:
PERMEABLE CONCRETE IN LIEU OF STANDARD CONCRETE. WORK INCLUDES CHANGING IMPERVIOUS CONCRETE TO PERVIOUS. VEHICULAR RATED PERVIOUS CONCRETE WILL BE 6-INCHES THICK WITH 12-INCHES OF PERMEABLE BASE COURSE (2- TO ¾-INCH OR NO. 57 ROCK) AND WILL OMIT REINFORCEMENT. PEDESTRIAN RATED PERVIOUS CONCRETE WILL HAVE PERMEABLE BASE COURSE (2- TO ¾-INCH OR NO. 57 ROCK).

GENERAL NOTES

1. INFORMATION REGARDING EXISTING CONDITIONS USED TO PREPARE THESE DRAWINGS HAS BEEN PROVIDED BY OTHERS. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION. PROVIDE WRITTEN NOTIFICATION TO THE ARCHITECT OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS & THE DRAWINGS. THE ARCHITECT WILL ISSUE A WRITTEN DIRECTIVE IF FURTHER CLARIFICATION IS REQUIRED.

UTILITY LOCATE NOTES

PROCEDURE:

A. CONTRACTOR IS TO NOTIFY THE OREGON ONE CALL CENTER AT 1-800-332-2344 FOR LOCATE(S).

B. LOCATE REQUESTS MUST BE PHONED IN AT LEAST 72 BUSINESS HOURS PRIOR TO SCHEDULED WORK. PLEASE GATHER ALL OF THE INFORMATION REQUIRED TO PROCESS THE LOCATE REQUEST BEFORE CALLING OREGON ONE CALL CENTER. THE FOLLOWING INFORMATION IS NEEDED FOR THE LOCATE REQUEST:
   1. COMPANY NAME & PHONE #
   2. PARK NAME
   3. TYPE OF WORK (IE: IRRIGATION REPAIR, TRENCHING, INSTALLING BIKE RACK, ETC. JUST STATING THAT YOU NEED A LOCATE IS NOT ENOUGH INFORMATION)
   4. STREET NAME INCLUDING ITS' PROPER SUFFIX (IE: AVE., ST., ETC.)
   5. NEAREST INTERSECTING STREET NAME & SUFFIX
   6. DISTANCE & DIRECTION FROM INTERSECTION TO THE LOCATE SITE(S)
   7. EMAIL ADDRESS FOR THE CONSTRUCTION COMPANY
   8. EMAIL ADDRESS OF PARKS CONSTRUCTION MANAGER

C. ONCE CONTRACTOR HAS RECEIVED THE TICKET NUMBER FROM OREGON ONE CALL CENTER, CONTRACTOR WILL THEN CONTACT PARKS UTILITY LOCATE REQUEST COORDINATOR.

D. CONTRACTOR WILL MARK OUT THE LOCATE SITE IN WHITE PAINT AND ALSO MARK THE INTERSECTION SPECIFIED IN THE LOCATE REQUEST WITH THE WORD 'LOCATE' AND AN ARROW POINTING TOWARDS THE WORK SITE IN WHITE PAINT. PARKS IRRIGATION STAFF WILL THEN LOCATE ALL IRRIGATION LINES WITH WHITE PAINT, WITHIN THE WORK ZONE. CONTRACTOR SHALL NOT DIG UNTIL ALL LOCATES HAVE BEEN COMPLETED.

GENERAL ABBREVIATIONS

AD	AREA DRAIN
ALT	ALTERNATE
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
BLDG	BUILDING
CB	CATCH BASIN
CJ	CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR
CONC	CONCRETE
CONST	CONTRUCTION
COORD	COORDINATE
CPSC	CONSUMER PRODUCT SAFETY COMMISSION
CTR	CENTER
AD.	DIAGONAL
DIAM.	DIAMETER
DIM.	DIMENSION
E (EX)	EXISTING
EA	EA
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
EQ	EQUAL
EQUIP	EQUIPMENT
FF	FINISH FLOOR
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FIN	FINISH
FLR	FLOOR
FOB	FACE OF BUILDING
FOC	FACE OF CURB
FOW	FACE OF WALL
FS	FINISH SURFACE
FT	FEET, FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
HB	HOSE BIB
HT	HEIGHT
HOR	HORIZONTAL
IN	INCHES
JT	JOINT
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OPP	OPPOSITE
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PL	PLATE
PNT	POINT
PNT	PAINT
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PROJ	PROJECT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
REF	REFERENCE
REQ'D	REQUIRED
S	SANITARY SEWER
SS	STORM SEWER
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMBOL
T&G	TONGUE AND GROOVE
TEL	TELEPHONE
TEMP	TEMPORARY
TS	TUBE STEEL
TOC	TOP OF CURB
TOW	TOP OF WALL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UL	UNDERWRITERS LABORATORY
VERT	VERTICAL
W	WATER
W/	WITH
WD	WOOD
WF	WIDE FLANGE
W/O	WITHOUT
WT	WEIGHT

NOTICE TO EXCAVATORS:
ATTENTION: OREGON LAW REQUIRES YOU TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH IN OAR 952-001-0010 THROUGH OAR 952-001-0090. YOU MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER.

(NOTE: THE TELEPHONE NUMBER FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503)-232-1987).

POTENTIAL UNDERGROUND FACILITY OWNERS

Dig Safely.

Call the Oregon One-Call Center
DIAL 811 or 1-800-332-2344

EMERGENCY TELEPHONE NUMBERS

NW NATURAL GAS	
M-F 7am-6pm	503-226-4211 Ext.4313
AFTER HOURS	503-226-4211
PGE	503-464-7777
QWEST	1-800-573-1311
CITY BUREAU OF MAINTENANCE	503-823-1700
CITY WATER	503-823-4874
VERIZON	1-800-483-1000

PROPERTY OWNER
North Clackamas Parks & Recreation District
150 Beavercreek Road
Oregon City, OR 97045
503.742.4348
Contact: Heather Koch
hkoch@ncprd.com

LANDSCAPE ARCHITECT
2.ink Studio, P.C.
160 NE Sixth Ave, STE 200
Portland, OR 97232
503.546.4645
Contact: Jonathan Beaver
jbeaver@2inkstudio.com
Direct: 971.865.5333
Contact: Julia Warden
jwarden@2inkstudio.com

OWNER'S REPRESENTATIVE
Shiels Obletz Johnsen (SOJ)
421 SW sixth avenue #750
Portland, OR 97204
503.242.0084
Contact: Vanessa Robinson
vrobinson@sojpdx.com

GENERAL CONTRACTOR
Lease Crutcher Lewis (Lewis)
550 SW 12th Avenue
Portland, OR 97205
503.223.0500
Contact: Andrew Dykeman
andrew.dykeman@lewisbuilds.com

ARBORIST
The Pacific Resources Group
13688 SW Jenna Court
Portland, OR, 97223
503.222.4320
Contact: Stephen Goetz
sfgoetz@frontier.com

ARCHITECT
Material Architecture & Furniture
2410 SE 50th Avenue
Portland, OR 97206
503.740.2954
Contact: Timothy Fouch
tim@material-architecture.com

CIVIL ENGINEER
Zucker Engineering, LLC
4014 SE Ankeny Street
Portland, OR, 97214
503.956.3473
Contact: Adam Zucker
adam@zuckerengineering.com

GEOTECHNICAL
Hart Crowser
6420 Macadam Avenue, STE 100
Portland, OR, 97239
503.620.7284
Contact: Dan Trisler
dan.trisler@hartcrowser.com

LAND USE CONSULTANT
ESA
819 SE Morrison St., Ste. 310
Portland, OR 97214
503.274-2010
Contact: John Vlastelicia
jvlastelicia@esassoc.com

MEP ENGINEER
R&W Engineering, Inc.
9615 SW Allen Blvd, STE 107
Beaverton, OR 97005
503.292.6000
Contact: Sam Russum
srussum@rweng.com

STRUCTURAL ENGINEER
Grummel Engineering
920 SW Third Avenue #200
Portland, OR 97204
503.244.7014
Contact: Eric Pfau
eric@grummelengineering.com

SURVEYOR
Otak
808 SW Third Avenue, STE 300
Portland, OR, 97204
503.287.6825
Contact: Jon Yamashita
jon.yamashita@otak.com

TRAFFIC SIGNAL ENGINEER
Nemariam Engineering and Associates
10976 NW Ironwood lane
Portland, OR 97229
541.680.3411
Contact: Haregu Nemarium
haregu.nemariam@gmail.com

WATER FEATURE CONSULTANT
STO Design Group, Inc.
2500 Redhill Avenue, STE 205
Santa Ana, CA, 92705
949.476.8777
Contact: Ken McPhie
ken@stodesign.com

NOT FOR CONSTRUCTION

ONE INCH
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
[DRAWING SET STATUS]

2.ink Studio | Landscape Architecture
160 NE Sixth Avenue, Suite 200
Portland, OR 97232
503.546.4645
www.2inkstudio.com

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW/JB

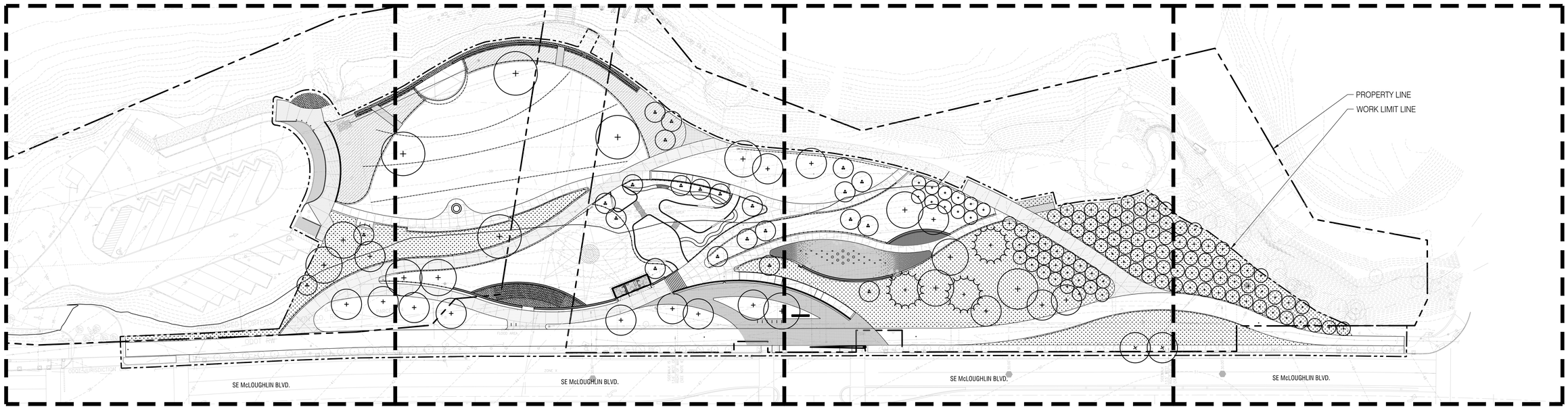
REVISIONS

DATE	DESCRIPTION	BY

SITE INFORMATION

G0.10

AREA 1 | AREA 2 | AREA 3 | AREA 4



SEE SHEETS:	SEE SHEETS:	SEE SHEETS:	SEE SHEETS:
L1.01	L1.02	L1.03	L1.04
L2.01	L2.02	L2.03	L2.04
L3.01	L3.02	L3.03	L3.04
L4.01	L4.02	L4.03	L4.04
L5.01	L5.02	L5.03	L5.04
L6.01	L6.02	L6.03	L6.04

NOT FOR CONSTRUCTION

SCALE 1"=30'

2.ink Studio | Landscape Architecture
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MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW/JB

REVISIONS

DATE	DESCRIPTION	BY

KEY PLAN

G0.20

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

TABLE 'A' ITEMS

2. THE STREET ADDRESS OF THE PROPERTY: VARIOUS TAX LOTS
(MILWAUKIE RIVERFRONT PARK LISTED AS 11211 SE MCLOUGHLIN BOULEVARD)

3. ACCORDING TO FLOOD INSURANCE RATE MAP 41005C0009D, PANEL 0009D PREPARED BY FEMA WITH AN EFFECTIVE DATE OF JUNE 17, 2008 THE SITE IS COVERED BY FOUR (4) FLOOD ZONE CLASSIFICATIONS AS DELINEATED IN THE MAP HEREIN:
"SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, ZONE AE, BASE FLOOD ELEVATIONS DETERMINED".

"FLOODWAY AREAS IN ZONE AE, THE FLOOD WAY IS THE CHANNEL OF A STREAM PLUS ANY ADJACENT FLOODPLAIN AREAS THAT MUST BE KEPT FREE OF ENCROACHMENT SO THAT THE 1% ANNUAL CHANCE FLOOD CAN BE CARRIED WITHOUT SUBSTANTIAL INCREASES IN FLOOD HEIGHTS".

"OTHER FLOOD AREAS, ZONE X, AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD".

"OTHER AREAS, ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN" ACCORDING TO FEMA MAP 41005C0009D WITH AN EFFECTIVE DATE OF JUNE 17, 2008.

4. GROSS LAND AREA IS 6.294 ACRES ±.

5. VERTICAL RELIEF IS SHOWN HEREON BY 1 FOOT CONTOUR LINES CREATED BY GROUND SURVEY DATA. VERTICAL DATUM IS NAVD88.

7a. EXTERIOR DIMENSIONS OF ALL BUILDINGS AT GROUND LEVEL ARE AS SHOWN.

8. SUBSTANTIAL FEATURES OBSERVED DURING THE SURVEY ARE SHOWN HEREIN.

9. PARKING SPACES:
TOTAL:		26
OVERSIZED DISABLED:		1
STANDARD DISABLED:		3
OVERSIZED:		18
STANDARD:		4

11. UTILITY LOCATIONS ARE SHOWN FROM SURVEYED LOCATIONS OF OBSERVED EVIDENCE AND MARKINGS MADE BY LOCATING SERVICES, TOGETHER WITH MAPS AND ASBUILT PLANS FROM GOVERNMENTAL AND SERVICE PROVIDING AGENCIES AS AVAILABLE.

13. THE NAMES OF ADJOINING PROPERTY OWNERS ARE AS SHOWN.

16. EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.

17. THE SURVEYOR HAS NOT BEEN INFORMED OF ANY PROPOSED CHANGES TO STREET RIGHT OF WAY LINES. NO EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS WERE EVIDENT AT TIME OF SURVEY.

18. THERE WAS NO FIELD DELINEATION OF WETLANDS OBSERVED AT THE TIME OF THE FIELD WORK.

SURVEYOR'S NOTES

1. THIS SURVEY IS BASED UPON THE DESCRIPTIONS IN THE OWNERSHIP AND ENCUMBRANCES REPORT WITH GENERAL INDEX LIENS REPORT BY FIDELITY NATIONAL TITLE COMPANY OF OREGON, ORDER NO. 45141810076, WITH AN EFFECTIVE DATE OF JUNE 26, 2018 AT 8:00 A.M., REFERRED TO HEREON AS "TITLE REPORT". ACCORDING TO SAID REPORT THE PROPERTY IS VESTED IN "CITY OF MILWAUKIE, A MUNICIPAL CORPORATION".
2. THE BASIS OF BEARINGS IS GRID PER OREGON STATE PLANE COORDINATE SYSTEM, NORTH ZONE AND IS IN AGREEMENT WITH SURVEY NUMBER 2007-162, MULTNOMAH COUNTY SURVEY RECORDS.
3. ELEVATIONS ARE BASED ON NGS BENCHMARK RD1487 AT THE INTERSECTION OF STATE HIGHWAYS 99e AND 224. ELEVATION: 43.49' NAVD88.
4. THE SITE HAS VEHICULAR ACCESS FROM SE MCLOUGHLIN BOULEVARD AS SHOWN.
5. UTILITY LOCATIONS ARE SHOWN FROM SURVEYED LOCATIONS OF OBSERVED EVIDENCE AND MARKINGS MADE BY LOCATING SERVICES, TOGETHER WITH MAPS AND ASBUILT PLANS FROM GOVERNMENTAL AND SERVICE PROVIDING AGENCIES AS AVAILABLE.
6. PORTIONS OF SIDEWALK EXTEND UP TO 13.6' OUTSIDE OF RIGHT OF WAY, SEE SHEET 2.

EXCEPTIONS

SURVEY RELATED MATTERS IN PART TWO ENCUMBRANCES PER OWNERSHIP AND ENCUMBRANCES REPORT WITH GENERAL INDEX LIENS REPORT BY FIDELITY NATIONAL TITLE COMPANY OF OREGON, ORDER NO. 45141810076, WITH AN EFFECTIVE DATE OF JUNE 26, 2018 AT 8:00 A.M.:

9. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: PORTLAND GENERAL ELECTRIC COMPANY, AN OREGON CORPORATION
PURPOSE: ELECTRIC TRANSMISSION LINES
RECORDING DATE: APRIL 27, 1953
RECORDING NO: BOOK 468, PAGE 478
AFFECTS: PARCEL 5
SURVEYOR'S NOTE: BLANKET OVER PARCEL 5

10. DEED RESTRICTIONS AS RESERVED IN DEED
FROM: PUBLISHERS PAPER CO., A DELAWARE CORPORATION
DATED: DECEMBER 31, 1973
RECORDED: JANUARY 9, 1974
RECORDING NO.: 74-000554
AFFECTS: PARCEL 15
SURVEYOR'S NOTE: NOT PLOTTABLE

11. ANY EASEMENTS OR RIGHTS OF WAY FOR EXISTING UTILITIES OR OTHER RIGHTS OF WAY OVER THOSE PORTIONS OF SAID LAND LYING WITHIN THE PUBLIC RIGHT OF WAY VACATED BY RESOLUTION OR ORDINANCE
RECORDING DATE: FEBRUARY 28, 1983
RECORDING NO: 83-005456
AFFECTS: PARCEL 4
SURVEYOR'S NOTE: DESCRIPTION FALLS ENTIRELY WITHIN CURRENT RIGHT OF WAY

12. ACCESS RESTRICTIONS AS CONTAINED IN DOCUMENT,
RECORDING DATE: APRIL 2, 1998
RECORDING NO.: 98-027468
SURVEYOR'S NOTE: AFFECTS PARCEL 13, FORBIDS DIRECT ACCESS TO MCLOUGHLIN, SIGN PLACEMENT AND USAGE OF LAND FOR WASTE STORAGE.

13. DEED RESTRICTIONS AS RESERVED IN DEED
FROM: GARY E. KLEIN AND SHARON L. KLEIN
DATED: DECEMBER 9, 2003
RECORDED: DECEMBER 16, 2003
RECORDING NO.: 2003-162584
AFFECTS: PARCEL 12
SURVEYOR'S NOTE: NOT A SURVEY RELATED MATTER

14. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: PORTLAND GENERAL ELECTRIC COMPANY, AN OREGON CORPORATION
PURPOSE: ELECTRIC TRANSMISSION LINE
RECORDING DATE: SEPTEMBER 26, 2013
RECORDING NO: 2013-067881
AFFECTS: PARCEL 5
SURVEYOR'S NOTE: 30' WIDE EASEMENT AFFECTS MULTIPLE PARCELS, SHOWN HEREIN ON SHEET 2

DESCRIPTIONS

SEE SHEET 2 FOR PARCELS 1 THROUGH 13 DESCRIPTIONS

PARCEL 14: (11E35AD-01000)

A PORTION OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THECITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, SAID TRACT ALSO BEING PARCEL 1 AS RESERVED IN THAT CERTAIN DEED FROM PUBLISHER'S PAPER CO., A DELAWARE CORPORATION, TO THEN CITY OF MILWAUKIE, OREGON, A MUNICIPAL CORPORATION, RECORDED JANUARY 9, 1974, RECORDER'S FEE NO. 74--000554, CLACKAMAS COUNTY RECORDS, SAID 50 FOOT WIDE STRIP BEING DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTH LINE OF COUNTY ROAD NO. 208 AND THE WEST LINE OF THE PORTLAND TRACTION COMPANY RIGHT OF WAY; THENCE WESTERLY ALONG THE SAID SOUTH LINE OF COUNTY ROAD NO. 208, A DISTANCE OF 50 FEET TO THE EAST LINE OF THE TRACT DESCRIBED IN THE DEED PUBLISHER'S PAPER CO., A DELAWARE CORPORATION, TO THEN CITY OF MILWAUKIE, OREGON, A MUNICIPAL CORPORATION, DATED DECEMBER 31, 1973, RECORDED JANUARY 9, 1974, RECORDER'S FEE NO. 74--000554, CLACKAMAS COUNTY RECORDS; THENCE ALONG SAID EAST LINE OF THE CITY OF MILWAUKIE TRACT TO THE NORTHERLY BANK OF KELLOGG CREEK; THENCE EASTERLY ALONG THE NORTHERLY BANK OF SAID KELLOGG CREEK TO THE SAID WEST LINE OF THE PORTLAND TRACTION COMPANY RIGHT OF WAY; THENCE NORTHERLY ALONG SAID WEST LINE OF THE PORTLAND TRACTION COMPANY RIGHT OF WAY TO THE PLACE OF BEGINNING.

TOGETHER WITH A PORTION OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, SAID TRACT ALSO BEING PARCEL 2 AS RESERVED IN THAT CERTAIN DEED FROM PUBLISHER'S PAPER CO., A DELAWARE CORPORATION, TO THEN CITY OF MILWAUKIE, OREGON, A MUNICIPAL CORPORATION, RECORDED JANUARY 9, 1974, RECORDER'S FEE NO. 74--000554, CLACKAMAS COUNTY RECORDS, SAID TRACT BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 613.15 FEET NORTH AND 329.07 FEET WEST OF THE EAST ONE--QUARTER CORNER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, SAID POINT ALSO BEING SOUTH 87°40' WEST 41.28 FEET FROM THE NORTHEAST CORNER OF THE JOSEPH KELLOGG TRACT AS DESCRIBED IN DEED RECORDED AT VOLUME B, PAGE 297, CLACKAMAS COUNTY DEED RECORDS; THENCE SOUTH 69°7'20" WEST, A DISTANCE OF 235.51 FEET TO THE MEANDER LINE OF THE RIGHT BANK OF THE WILLAMETTE RIVER AT LOW WATER STAGE; THENCE WITH SAID MEANDER LINE NORTH 13°0' EAST, A DISTANCE OF 50.96 FEET TO THE INTERSECTION OF THE WESTERLY PROJECTION OF THE SOUTHERLY LINE OF ADAMS STREET WITH THE MEANDER LINE OF THE RIGHT BANK OF SAID WILLAMETTE RIVER; THENCE WITH THE MEANDERS OF SAID RIVER AT LOW WATER STAGE DOWNSTREAM NORTH 13° EAST 209.12 FEET; THENCE SOUTH 61°25' EAST 154.48 FEET, MORE OR LESS, TO A POINT ON THE WESTERLY RIGHT OF WAY BOUNDARY OF PORTLAND TRACTION COMPANY RAILWAY; THENCE SOUTH 5°40'20" EAST 146.0 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL 15: (11E35AD--01001)

A CERTAIN TRACT OF LAND BEING A PORTION OF THE LOT WHITCOMB AND WIFE DONATION LAND CLAIM NO. 38, SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD DRIVEN AT THE INTERSECTION OF THE WESTERLY PROJECTION OF THE CENTER LINE OF JEFFERSON STREET WITH THE WESTERLY SIDE LINE OF FRONT STREET, IN THE TOWN OF MILWAUKIE, CLACKAMAS COUNTY, OREGON, ACCORDING TO THE RECORDED PLAT THEREOF, SAID POINT BEING SOUTH 80' WEST, 320 FEET DISTANT FROM A STONE MONUMENT SET ON THE INTERSECTION OF THE CENTER LINE OF MAIN STREET AND JEFFERSON STREET IN SAID TOWN; RUNNING THENCE SOUTH 10' EAST PARALLEL TO THE CENTER LINE OF MAIN STREET AND TRACING THE WESTERLY SIDE LINE OF FRONT STREET ACCORDING TO THE RECORDED PLAT ABOVE MENTIONED, 595.0 FEET TO THE NORTHEAST CORNER OF THE JOSEPH KELLOGG TRACT AS DESCRIBED IN DEED RECORDED AT VOLUME B, PAGE 297, CLACKAMAS COUNTY DEED RECORDS, SAID POINT BEING ALSO THE INTERSECTION OF THE SOUTHERLY LINE OF ADAMS STREET WITH THE WESTERLY LINE OF FRONT STREET, SAID POINT BEING 320 FEET WEST OF THE CENTER LINE OF MAIN STREET; THENCE SOUTH 80'40 WEST ALONG SAID WESTERLY EXTENSION OF THE SOUTHERLY LINE OF ADAMS STREET IN SAID TOWN OF MILWAUKIE, A DISTANCE OF 41.28 FEET TO A POINT, SAID POINT BEING 361.18 FEET FROM THE CENTER LINE OF MAIN STREET, WHICH POINT IS ALSO 613.15 FEET NORTH AND 329.07 FEET WEST OF THE EAST QUARTER CORNER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN; THENCE SOUTH 69°7'20" WEST A DISTANCE OF 235.51 FEET TO THE MEANDER LINE OF THE RIGHT BANK OF THE WILLAMETTE RIVER AT LOW WATER STAGE; THENCE WITH SAID MEANDER LINE NORTH 13'0' EAST A DISTANCE OF 50.66 FEET TO THE INTERSECTION OF THE WESTERLY PROJECTION OF THE SOUTHERLY LINE OF SAID ADAMS STREET WITH THE MEANDER LINE OF THE RIGHT BANK OF SAID WILLAMETTE RIVER; THENCE WITH THE MEANDERS OF SAID RIVER AT LOW WATER STAGE DOWNSTREAM NORTH 13° EAST 209.12 FEET; THENCE WITH SAID MEANDER LINE NORTH 33' WEST 317.77 FEET; THENCE WITH THE SAID MEANDER LINE NORTH 20' WEST 111.70 FEET TO THE INTERSECTION OF THE WESTERLY PROJECTION OF THE CENTER LINE OF JEFFERSON STREET IN SAID TOWN OF MILWAUKIE, WITH THE MEANDER LINE OF THE RIGHT BANK OF SAID WILLAMETTE RIVER AT LOW WATER MARK; THENCE WITH THE SAID MEANDER LINE NORTH 22'37' WEST A DISTANCE OF 64.32 FEET TO A POINT AT WHICH THE SOUTHERLY LINE OF CLACKAMAS COUNTY ROAD NO. 208 INTERSECTS SAID MEANDER LINE; THENCE ALONG THE SOUTHERLY LINE OF SAID COUNTY ROAD NORTH 89°42' EAST A DISTANCE OF 332.55 FEET TO THE WESTERLY LINE OF FRONT STREET OF THE TOWN OF MILWAUKIE; THENCE ALONG THE WESTERLY LINE OF FRONT STREET SOUTH 10' EAST 10.75 FEET TO THE POINT OF BEGINNING.

EXCEPTING THEREFROM ALL THAT PORTION THEREOF LYING EASTERLY OF THE WESTERLY LINE OF THE PORTLAND TRACTION COMPANY'S RAILWAY RIGHT OF WAY.

SURVEYOR'S CERTIFICATE

TO NORTH CLACKAMAS PARKS & RECREATION DISTRICT, AND FIDELITY NATIONAL TITLE COMPANY OF OREGON:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2, 3, 4, 5, 7(c), 8, 9, 11, 13, 14, 16, 17 AND 18 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 1, 2018.

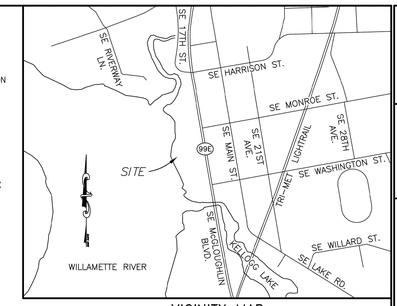
DATED THIS 3RD DAY OF AUGUST, 2018
JON M. YAMASHITA, PLS, REGISTRATION NO. 53760
jon.yamashita@OTAK.COM

REGISTERED PROFESSIONAL LAND SURVEYOR
OREGON
JANUARY 10, 2002
JON M. YAMASHITA
53760LS
EXPIRES 6/30/20

PRELIMINARY

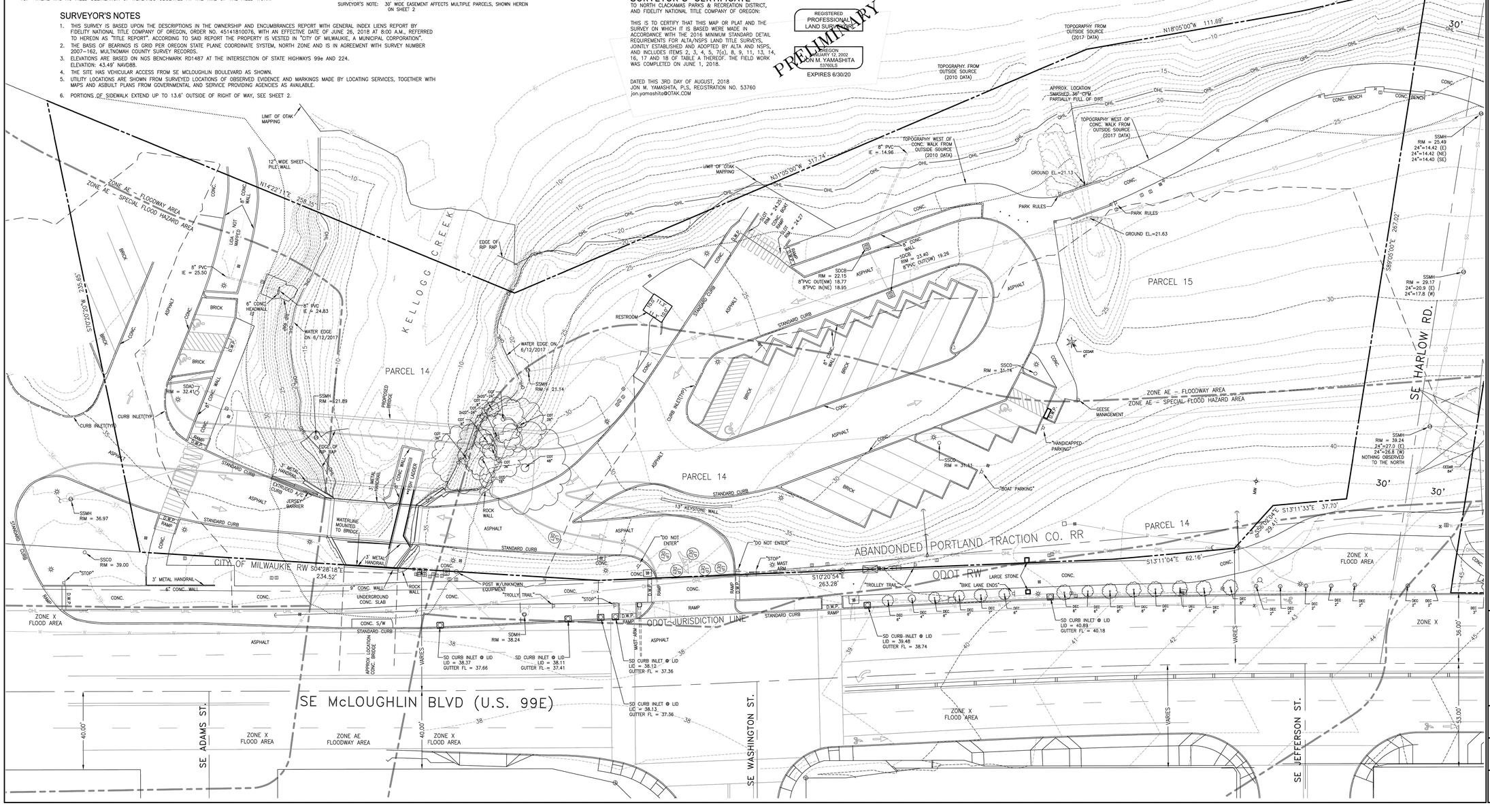
LEGEND

SANITARY LINE	SURVEY CONTROL
OVER HEAD UTILITY LINE	SANITARY MANHOLE
WATER LINE	STORM MANHOLE
POWER LINE	CLEANOUT
GAS LINE	APPROXIMATE MANHOLE SIZE/LOCATION
TRAFFIC CONTROL LINE	CURB INLET
EDGE OF WATER	CATCH BASIN
RAMP	YARD/AREA DRAIN
CULVERT PIPE	FIRE HYDRANT
EASEMENT LINE	WATER VALVE
BOUNDARY LINE	FIRE DEPARTMENT CONNECTION
PARCEL LINE	WATER METER
CENTER LINE	IRRIGATION CONTROL VALVE
FEMA ZONE BOUNDARY	ELECTRIC SUBSURFACE JUNCTION BOX
TREE DRIP LINE	LIGHT POLE
WATER QUALITY RESOURCE BOUNDARY	TRAFFIC JUCTION BOX
ORDINARY HIGH WATER LINE	TRAFFIC SIGNAL LOOP
WILLAMETTE GREENWAY BUFFER LINE	UTILITY POLE
	SIGNAL POLE
CONC. = CONCRETE	PEDESTRIAN SIGNAL POLE
COT = COTTONWOOD TREE	GUY ANCHOR
SS = SANITARY SEWER	YARD LIGHT
SD = STORM SEWER	BOLLARD
MH = MANHOLE	SIGN
CB = CATCH BASIN	LINE CONTINUES
CO = CLEAN OUT	HANDICAPPED PARKING
D.W.P. = DETECTABLE WARNING PAD	DECIDUOUS TREE
	EVERGREEN TREE



VICINITY MAP
NOT TO SCALE

SCALE 20' 0' 20' 40' IN FEET



CCW	06--01--2018
Field	Date
JMY	07--16--2018
Calculated	Date
MDR	07--16--2018
Drawn	Date
JMY	07--1+--2018
Checked	Date

REVISIONS

2.ink Studio | Landscape Architecture
180 NE Sixth Avenue, Suite 200
Portland, Oregon 97232
503.546.4645
www.2inkstudio.com

ALTA/NSPS LAND TITLE SURVEY

MILWAUKIE BAY PARK
IN THE EAST 1/2 OF SECTION 35
TOWNSHIP 1 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
CITY OF MILWAUKIE, CLACKAMAS COUNTY, OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW/JB

18809
Project No.

S18809A140
Drawing No.

1 OF 2
Sheet No.

REVISIONS
DATE	DESCRIPTION	BY

EXISTING CONDITIONS SOUTH

V0.10

NOT FOR CONSTRUCTION

ONE INCH
IF THIS BAR DOES NOT MEASURE 1--INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SET SCALE:

DESCRIPTIONS

PARCEL 1: (11E35AA–04900)

BEGINNING AT AN IRON PIPE DRIVEN AT A POINT NORTH 10° WEST 88.93 FEET DISTANT FROM A POINT IN THE WESTERLY PROJECTION OF THE CENTER LINE OF JEFFERSON STREET, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, SOUTH 80° WEST 430 FEET DISTANT FROM A STONE MONUMENT SET AT THE INTERSECTION OF THE CENTER LINE OF MAIN AND JEFFERSON STREETS IN SAID MILWAUKIE, ACCORDING TO THE DULY RECORDED PLAT THEREOF ON RECORD IN THE OFFICE OF THE RECORDER OF CONVEYANCES IN SAID COUNTY; RUNNING THENCE NORTH 10° WEST PARALLEL TO THE WESTERLY LINE OF FRONT STREET AND 110 FEET DISTANT THEREFROM AND MEASURED AT RIGHT ANGLES THERETO, 100 FEET TO AN IRON PIPE; THENCE SOUTH 89° WEST 135.88 FEET TO A POINT ON THE MEANDER LINE OF THE RIGHT BANK OF THE WILLAMETTE RIVER AT LOW WATER STAGE, FROM WHICH AN IRON PIPE DRIVEN IN THE BANK BEARS NORTH 89° EAST 46.73 FEET DISTANT; THENCE TRACING THE MEANDERS OF SAID RIVER AT LOW WATER STAGE UPSTREAM SOUTH 11° WEST 28.63 FEET TO AN IRON ROD; THENCE ALONG SAID MEANDER LINE AT LOW WATER STAGE SOUTH 41° WEST 95.23 FEET TO AN IRON PIPE DRIVEN IN THE RED ROCK; THENCE LEAVING SAID MEANDER LINE NORTH 89° EAST 221.19 FEET TO THE PLACE OF BEGINNING.

PARCEL 2: (11E35AA–04800)

A PART OF THE DONATION LAND CLAIM OF LOT WHITCOMB AND WIFE IN TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, BOUNDED AND DESCRIBED AS FOLLOWS, TO–WIT:

BEGINNING AT AN IRON PIPE DRIVEN AT THE NORTHEAST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO LYDIA A. HARLOW BY DEED RECORDED IN BOOK 159, PAGE 367, RECORDS OF DEEDS OF CLACKAMAS COUNTY, WHICH POINT IS 111.48 FEET NORTH AND 456.07 FEET WEST OF THE CITY MONUMENT AT THE INTERSECTION OF THE CENTER LINES OF JEFFERSON AND MAIN STREET IN THE TOWN OF MILWAUKIE, OREGON; RUNNING THENCE SOUTH 89°00' WEST TRACING THE NORTH LINE OF THE LYDIA A. HARLOW TRACT 135.88 FEET TO AN IRON PIPE IN THE MEANDER LINE OF THE RIGHT BANK OF THE WILLAMETTE RIVER AT LOW WATER STAGE; THENCE NORTH 11°00' EAST TRACING THE MEANDERS BANK OF THE WILLAMETTE RIVER AT LOW WATER STAGE 51.12 FEET TO A POINT; THENCE NORTH 89° EAST PARALLEL TO THE NORTH BOUNDARY OF THE LYDIA A. HARLOW TRACT 50 FEET DISTANT THEREFROM MEASURED AT RIGHT ANGLE THERETO A DISTANCE OF 117.25 FEET TO A POINT; THENCE SOUTH 10°00' EAST 50.62 FEET TO THE PLACE OF BEGINNING.

PARCEL 3: (11E35AA–04700)

BEING A PART OF THE LOT WHITCOMB DONATION LAND CLAIM IN TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, BOUNDED AND DESCRIBED AS FOLLOWS, TO–WIT:

BEGINNING AT AN IRON ROD DRIVEN AT THE NORTHEAST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO INGE A. AND ELVA JONES BY DEED RECORDED IBN BOOK 220, PAGE 162, DEED RECORDS, WHICH POINT IS NORTH 9°20' WEST 38.10 FEET DISTANT AND SOUTH 80°40' WEST, 80.00 FEET DISTANT AND SOUTH 89°42' WEST 101.22 FEET DISTANT AND NORTH 9°20' WEST 150.62 FEET FROM THE SOUTHWEST CORNER OF BLOCK 28, MILWAUKIE, OREGON, ACCORDING TO THE DULY RECORDED PLAT THEREOF, SITUATED IN THE LOT WHITCOMB DONATION LAND CLAIM NO. 38, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN; RUNNING THENCE SOUTH 89°40' WEST TRACING THE NORTHERLY BOUNDARY OF SAID JONES TRACT 117.25 FEET TO A POINT ON THE MEANDER LINE OF THE RIGHT BANK OF THE WILLAMETTE RIVER AT LOW WATER STAGE; THENCE TRACING THE MEANDER LINE OF THE RIGHT BANK OF SAID RIVER DOWNSTREAM AT LOW WATER STAGE NORTH 11°40' EAST 66.10 FEET TO AN IRON ROD ; THENCE TRACING THE MEANDER LINE OF THE RIGHT BANK OF SAID RIVER DOWNSTREAM AT LOW WATER STAGE NORTH 22°20' WEST 189.75 FEET TO THE SOUTHWEST CORNER OF A TRACT OF LAND DESCRIBED IN THE WILL OF ISSAC GRATTON, PROBATE NO. 28213, MULTNOMAH COUNTY, AS SET OF TO PAUL J. GRATTON, FROM WHICH POINT A FORD AXLE DRIVEN IN THE GROUND BEARS NORTH 80°40' EAST 16.55 FEET DISTANT; THENCE TRACING THE SOUTHERLY BOUNDARY OF THE PAUL J. GRATTON TRACT NORTH 80°40' EAST 139.77 FEET TO A POINT IN THE PORTLAND RAILWAY LIGHT AND POWER COMPANY EASEMENT, FROM WHICH POINT AN IRON PIPE DRIVEN ON THE WESTERLY SIDE LINE OF SAID EASEMENT BEARS SOUTH 80°40' WEST 10.27 FEET DISTANT; THENCE SOUTHERLY TRACING THE CENTER LINE OF SAID EASEMENT ON AN 11°30' CURVE TO THE RIGHT A DISTANCE OF 71.23 FEET TO APOINT OF TANGENT; THENCE TRACING THE CENTER LINE OF SAID RAILWAY EASEMENT SOUTH 14°24' EAST 200.94 FEET TO AN IRON PIPE; THENCE SOUTH 89°40' WEST 34.40 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH A PART OF THE LOT WHITCOMB DONATION LAND CLAIM IN TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, BOUNDED AND DESCRIBED AS FOLLOWS, TO–WIT:

BEGINNING AT AN IRON PIPE DRIVEN AT A POINT WHICH IS NORTH 9°20' WEST 38.10 FEET DISTANT AND SOUTH 80°40' WEST 80.00 FEET DISTANT AND SOUTH 89°42' WEST 101.22 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, MILWAUKIE, OREGON, ACCORDING TO THE DULY RECORDED PLAT THEREOF, SITUATED IN THE LOT WHITCOMB DONATION LAND CLAIM NO. 38, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON; RUNNING THENCE NORTH 9°20' WEST 150.62 FEET TO AN IRON ROD DRIVEN AT THE NORTHEAST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO INGE A. AND ELVA JONES BY DEED RECORDED IBN BOOK 220, PAGE 162, DEED RECORDS; THENCE NORTH 89°40' EAST 24.10 FEET TO AN IRON PIPE DRIVEN IN THE WESTERLY BOUNDARY OF A RIGHT OF WAY EASEMENT HERETOFORE GRANTED TO PORTLAND RAILWAY, LIGHT AND POWER COMPANY; THENCE TRACING THE WESTERLY BOUNDARY OF SAID RIGHT OF WAY EASEMENT SOUTH 14°24' EAST 153.36 FEET; THENCE SOUTH 89°40' WEST 37.80 FEET TO THE PLACE OF BEGINNING.

SAVE AND EXCEPTING FROM THE EXECUTION OF THE DEED TO INGE A. AND ELVA JONES, A STRIP OF LAND 10 FEET WIDE, EXTENDING ALONG THE EASTERLY BOUNDARY OF THE ABOVE DESCRIBED TRACT BEING A PART OF THE EASEMENT GRANTED TO THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY.

PARCEL 4: (11E35AA–02200)

BEING A PART OF THE DONATION LAND CLAIM OF LOT WHITCOMB AND WIFE IN TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY AS THE SAME IS DULY LOCATED AND ESTABLISHED ALONG FRONT STREET IN THE TOWN OF MILWAUKIE, WHICH POINT IS NORTH 9°20' WEST 128.10 FEET DISTANT AND SOUTH 80°40' WEST 80.00 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, MILWAUKIE; THENCE SOUTH 80°40' WEST 49.65 FEET TO THE EASTERLY RIGHT OF WAY OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY; THENCE SOUTH 14°24' EAST 83.63 FEET TO THE NORTHERLY LINE OF HARLOW ROAD NO. 208; THENCE NORTH 89°42' EAST 42.8 FEET TO THE WESTERLY LINE OF SAID EAST PORTLAND–OREGON CITY HIGHWAY; THENCE NORTH 9°20' WEST ON SAID WESTERLY LINE OF SAID HIGHWAY80.01 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THAT PORTION OF JEFFERSON STREET INURING TO SAID TRACT BY REASON OF VACATION ORDINANCE NO. 1536, RECORDED FEBRUARY 28, 1983, FEE NO. 83–005456, DEED RECORDS.

PARCEL 5: (11E35AA–03901)

A PARCEL OF LAND IN THE LOT WHITCOMB DONATION LAND CLAIM, IN THE NORTHEAST ONE–QUARTER OF THE NORTHEAST ONE–QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CITY OF MILWAUKIE, CLACKAMAS COUNTY, OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER LOT 8, OF BLOCK 28 OF THE PLAT OF "MILWAUKIE", A DULY RECORDED PLAT IN SAID CLACKAMAS COUNTY; THENCE NORTH 10°00'00" WEST ALONG THE WESTERLY LINE OF SAID LOT 8, 38.20 FEET; THENCE LEAVING SAID WESTERLY LINE, SOUTH 80°00'00" WEST, 80.00 FEET TO A POINT, SAID POINT BEING THE INTERSECTION OF THE WESTERLY LINE OF MCLOUGHLIN BOULEVARD AND THE NORTHERLY LINE OF COUNTY ROAD NO. 208 (NOW A CITY STREET); THENCE SOUTH 89°00'00" WEST, ALONG SAID NORTHERLY LINE, 42.80 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL, SAID POINT OF BEGINNING BEING THE POINT OF INTERSECTION OF SAID NORTHERLY LINE WITH THE EASTERLY LINE OF THE FORMER PORTLAND RAILWAY, LIGHT AND POWER COMPANY RIGHT–OF–WAY, SAID POINT OF BEGINNING BEING FURTHER DESCRIBED AS BEING THE SOUTHEAST CORNER OF THAT PARCEL DESCRIBED IN DEED BOOK 223 ON PAGE 449 AS RECORDED IN THE CLACKAMAS COUNTY DEED RECORDS; THENCE TRACING THE EASTERLY LINE OF SAID DEED BOOK 223, PAGE 449 PARCEL THE FOLLOWING COURSESAND DISTANCES: NORTH 15°04'00" WEST, 164.26 FEET; THENCE NORTH 74°58'00" EAST, 7.50 FEET; THENCE NORTH 15°04'00" WEST, 40.98 FEET TO A POINT HEREIN DESCRIBED AS POINT "A"; THENCE CONTINUING NORTH 15°04'00" WEST, 109.02 FEET; THENCE SOUTH 74°56'00" WEST 7.50 FEET; THENCE NORTH 15°04'00" WEST, 42.31 FEET; THENCE ALONG THE ARC OF 509.06 FOOT RADIUS CURVE LEFT THROUGH A CENTRAL ANGLE OF 28°28'44", 253.03 FEET (CHORD BEARS NORTH 29°20'22" WEST, 250.48 FEET) TO A POINT ON THE LEFT BANK OF JOHNSON CREEK PER SURVEY FILED IN THE CLACKAMAS COUNTY SURVEYOR'S OFFICE AS D.T.M. 113; THENCE LEAVING SAID EASTERLY LINE OF SAID DEED BOOK 223, PAGE 449 PARCEL, SOUTH 49°41'03" WEST, ALONG SAID LEFT BANK PER D.T.M. 113 SURVEY, 20.03 FEET TO A POINT ON THE WESTERLY LINE OF SAID DEED BOOK 223, PAGE 449 PARCEL; THENCE SOUTHERLY, TRACING SAID WESTERLY LINE THE FOLLOWING COURSES AND DISTANCES: ALONG THE ARC OF A NON–TANGENT CURVE (THE RADIUS POINT OF WHICH BEARS SOUTH 46°17'15" WEST, 489.06 FEET) THROUGH A CENTRAL ANGLE OF 28°36'45", 244.25 FEET (CHORD BEARS SOUTH 29°24'23" EAST, 241.70 FEET); THENCE SOUTH 15°04'00" EAST, 351.56 FEET TO A POINT ON THE NORTHERLY LINE OF SAID COUNTY ROAD NO. 208 (NOW A CITY STREET); THENCE NORTH 89°00'00" EAST ALONG SAID NORTHERLY LINE, 20.62 FEET TO THE POINT OF BEGINNING.

SAID PARCEL ALSO BEING DESCRIBED AS FOLLOWS:

A PARCEL OF LAND ON THE LOT WHITCOMB DONATION LAND CLAIM, IN SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CITY OF MILWAUKIE, CLACKAMAS COUNTY, OREGON, SAID PARCEL BEING A PORTION OF THAT CERTAIN PROPERTY DESCRIBED IN DEED TO GRATTON INVESTMENT COMPANY AS RECORDED IN BOOK 111 AT PAGE 531, DEED RECORDS OF CLACKAMAS COUNTY, OREGON, SAID PARCEL BEING PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE SOUTH LINE OF SAID GRATTON PROPERTY WITH THE RELOCATED CENTER LINE OF THE P.E.P. COMPANY'S TRACK AT ENGINEER'S STATION 325+47.4 AS DESIGNATED BY STATE HIGHWAY SURVEY OF 1934, SAID INTERSECTION POINT BEING SOUTH 89°42' WEST AND 62 FEET DISTANT FROM AN IRON-PIPE, SET AT THE INTERSECTION OF THE WEST SIDE LINE OF FRONT STREET, MILWAUKIE (70 FEET IN WIDTH), AND THE NORTH SIDE LINE OF COUNTY ROAD NO. 208, SAID NORTH SIDE LINE OF SAID COUNTY ROAD BEING ALSO THE SOUTH LINE OF SAID GRATTON PROPERTY; THENCE NORTH 89°42' EAST ALONG SAID SOUTH PROPERTY LINE A DISTANCE OF 10.3 FEET TO A POINT 10 FEET EASTERLY FROM (MEASURED AT RIGHT ANGLES TO) SAID RELOCATED CENTER LINE; THENCE PARALLEL WITH SAID CENTER LINE NORTH 14°24' WEST A DISTANCE OF 173.1 FEET; THENCE NORTH 75°36' EAST A DISTANCE OF 7.5 FEET; THENCE NORTH 14°24' WEST PARALLEL WITH AND 17.5 FEET DISTANT FROM THE SAID CENTER LINE, A DISTANCE OF 150 FEET; THENCE SOUTH 75°36' WEST A DISTANCE OF 7.5 FEET; THENCE NORTH 14°24' WEST PARALLEL WITH AND 10 FEET DISTANT FROM SAID CENTER LINE, A DISTANCE OF 33.22 FEET; THENCE PARALLEL WITH AND 10 FEET DISTANT FROM THE SAID CENTER LINE, ALONG THE ARC OF A CURVE TO THE LEFT, HAVING A RADIUS OF 509.06 FEET THROUGH A CENTRAL ANGLE OF 48°05'10" A DISTANCE OF 427.23 FEET TO A POINT ON THE SOUTHWESTERLY SIDE LINE OF THAT CERTAIN 20 FOOT STRIP OF LAND CONVEYED TO THE P.R.L. & P. CO. BY DEED RECORDED IN BOOK 140, PAGE 346, DEED RECORDS OF CLACKAMAS COUNTY, OREGON; THENCE NORTH 78°36' WEST, TRACING THE SAID SOUTHWESTERLY SIDE LINE (DESCRIBED IN SAID DEED AS SOUTH 78°52' WEST) A DISTANCE OF 141.29 FEET TO A POINT SOUTH 11°24' WEST AND 10 FEET DISTANT FROM ENGINEER'S STATION 334+60.42, THE TERMINATING POINT OF SAID RELOCATED CENTER LINE; THENCE PARALLEL WITH, SOUTHWESTERLY OF AND 10 FEET DISTANT FROM THE SAID CENTER LINE, ALONG THE ARC OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 489.06 FEET, THROUGH AN ANGLE OF 64°12', A DISTANCE OF 547.99 FEET; THENCE TANGENT TO SAID CURVE SOUTH 14°24' EAST A DISTANCE OF 351.58 FEET TO THE SOUTH LINE OF SAID GRATTON INVESTMENT COMPANY PROPERTY; THENCE ALONG SAID SOUTH PROPERTY LINE NORTH 89°42' EAST A DISTANCE OF 10.3 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THE A PARCEL CONVEYED BY DEED RECORDED MAY 24, 1994, RECORDER'S NO. 94–043286,

CLACKAMAS COUNTY DEED RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE HEREIN DESCRIBED POINT "A"; THENCE NORTH 80°00'00" EAST ON A LINE PARALLEL TO THE WESTERLY EXTENSION OF THE SOUTH LINE OF BLOCK 15 OF SAID PLAT OF "MILWAUKIE", 52.92 FEET TO A POINT ON THE WESTERLY LINE OF MCLOUGHLIN BOULEVARD; THENCE NORTH 10°00'00" WEST, ALONG SAID WESTERLY LINE, 22.00 FEET; THENCE SOUTH 80°00'00" WEST ON A LINE PARALLEL TO AND 8.00 FEET SOUTHERLY FROM, WHEN MEASURED AT RIGHT ANGLES TO, SAID WESTERLY EXTENSION OF THEN SOUTH LINE OF BLOCK 15, 54.88 FEET; THENCE SOUTH 15°04'00" EAST, 22.09 FEET TO THE POINT OF BEGINNING.

PARCEL 6: (11E35AA–02300)

A TRACT OF LAND SITUATED IN THE DONATION LAND CLAIM OF LOT WHITCOMB, ET UX, SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS, AND STATE OF OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY SIDE LINE OF EAST PORTLAND–OREGON CITY HIGHWAY AS THE SAME IS DULY LOCATED AND ESTABLISHED ALONG FRONT STREET IN THE TOWN OF MILWAUKIE, OREGON, WHICH POINT IS NORTH 09°20' WEST 128.10 FEET DISTANT AND SOUTH 80°40' WEST 80.00 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE", IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS AND STATE OF OREGON; THENCE NORTH 09°20' WEST TRACING THE WESTERLY SIDE OF THE SAID EAST PORTLAND–OREGON CITY HIGHWAY, 86.9 FEET TO A POINT; THENCE AT RIGHT ANGLES TO SAID HIGHWAY, SOUTH 80°40' WEST, 49.60 FEET TO THE EASTERLY LINE OF THE RIGHT OF WAY OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY; THENCE ALONG THE EASTERLY LINE OF SAID RIGHT OF WAY, SOUTH 14°24' EAST, 6.00 FEET TO AN ANGLE POINT THEREOF; THENCE ALONG THE SOUTHERLY SIDE OF SAID RIGHT OF WAY, SOUTH 75°36' WEST, 7.50 FEET TO AN ANGLE POINT IN SAID RIGHT OF WAY; THENCE ALONG THE EASTERLY SIDE OF SAID RIGHT OF WAY, SOUTH 14°24' EAST, 81.47 FEET; THENCE NORTH 80°40' EAST, 49.65 FEET TO THE POINT OF BEGINNING.

PARCEL 7: (11E35AA–02400)

A PART OF THE LOT WHITCOMB DONATION LAND CLAIM, IN TOWNSHIP 1 SOUTH OF RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, MORE PARTICULARLY DESCRIBED AS BEGINNING ON THE WESTERLY SIDE LINE OF THE OREGON; THENCE NORTH 09°20' WEST TRACING THE WESTERLY SIDE OF THE SAID EAST PORTLAND–OREGON CITY HIGHWAY IN THE TOWN OF MILWAUKIE, NORTH 9°20' WEST, 215 FEET AND SOUTH 80°40' WEST, 80 FEET FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE"; THENCE CONTINUING NORTH 09°20' WEST ALONG THE WESTERLY SIDE LINE OF SAID HIGHWAY, 35 FEET; THENCE AT RIGHT ANGLES TO SAID HIGHWAY, SOUTH 80°40' WEST, 52.70 FEET TO THE EASTERLY LINE OF THE RIGHT OF WAY OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY; THENCE SOUTHERLY ON SAID RIGHT OF WAY LINE, 35.14 FEET TO A POINT SOUTH 80°40' WEST FROM THE PLACE OF BEGINNING; THENCE NORTH 80°40' EAST, 49.6 FEET TO THE PLACE OF BEGINNING.

PARCEL 8: (11E35AA–02500)

A PORTION OF THE DONATION LAND CLAIM OF LOT WHITCOMB AND WIFE, IN TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE COUNTY OF CLACKAMAS, AND STATE OF OREGON, BOUNDED AND DESCRIBED AS FOLLOWS, TO–WIT:

BEGINNING AT A POINT ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY, WHICH POINT IS NORTH 09°20' WEST 280 FEET DISTANT AND SOUTH 80°40' WEST 80 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE"; RUNNING THENCE NORTH 09°20' WEST TRACING THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY, 35 FEET TO AN IRON PIPE; THENCE SOUTH 80°40' WEST 58.46 FEET TO AN IRON PIPE DRIVEN ON THE EASTERLY SIDE LINE OF THE RIGHT OF WAY OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY; THENCE TRACING THE EASTERLY SIDE LINE OF SAID RIGHT OF WAY, SOUTH 14°24' EAST 35.14 FEET; THENCE SOUTH 80°40' EAST 55.36 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH THE NORTH 8 FEET OF THE FOLLOWING DESCRIBED PROPERTY IN THE COUNTY OF CLACKAMAS, AND STATE OF OREGON, TO–WIT:

THAT CERTAIN STRIP OF LAND 30 FEET IN WIDTH EXTENDING BETWEEN THE EASTERLY SIDE LINE OF THE RIGHT OF WAY OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY AND THE WEST LINE OF FRONT STREET IN MILWAUKIE, OREGON, AND LYING BETWEEN A WESTERLY EXTENSION OF THE NORTH SIDE LINE OF MONROE STREET AND A LINE DRAWN 30 FEET SOUTHERLY OF AND PARALLEL WITH SAID WESTERLY EXTENSION OF SAID MONROE STREET IN THE TOWN OF MILWAUKIE, AS CONVEYED TO SAID PORTLAND ELECTRIC POWER COMPANY BY GRATTON INVESTMENT COMPANY BY DEED RECORDED IN BOOK 223, PAGE 449, DEED RECORDS OF CLACKAMAS COUNTY, OREGON.

PARCEL 9: (11E35AA–02600)

PART OF THE LOT WHITCOMB DONATION LAND CLAIM NO. 38, IN TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS, AND STATE OF OREGON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY, NORTH 09°20' WEST 315.00 FEET AND SOUTH 80°40' WEST 80.00 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE"; THENCE NORTH09°20' WEST TRACING THE WESTERLY SIDE LINE OF SAID HIGHWAY 50 FEET TO THE SOUTHEAST CORNER OF A TRACT OF LAND CONVEYED TO W.J. EASTMAN BY DEED RECORDED OCTOBER 13, 1943, IN BOOK 314, PAGE 634, DEED RECORDS; THENCE SOUTH 80°40' WEST 70.36 FEET TO THE EASTERLY LINE OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY EASEMENT; THENCE FOLLOWING SAID EASEMENT LINE AS FOLLOWS: SOUTH 14°24' EAST 7.27 FEET; THENCE NORTH 75°36' EAST 7.5 FEET; THENCE SOUTH 14°24' EAST 43.60 FEET; THENCE LEAVING SAID EASEMENT LINE, NORTH 80°40' EAST 58.46 FEET TO THE PLACE
OF BEGINNING.

PARCEL 10: (11E35AA–02700)

A PART OF THE DONATION LAND CLAIM OF LOT WHITCOMB AND WIFE, IN SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE COUNTY OF CLACKAMAS, AND STATE OF OREGON, BOUNDED AND DESCRIBED AS FOLLOWS, TO–WIT:

BEGINNING ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY, WHICH POINT IS NORTH 09°20' WEST 365.00 FEET AND SOUTH 80°40' WEST 80.00 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE"; RUNNING THENCE SOUTH 89°40' WEST 80.40 FEET TO A POINT IN THE CENTER OF THE EASEMENT OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY; THENCE TRACING THE CENTER LINE OF SAID EASEMENT, NORTH 14°24' WEST 34.20 FEET TO A POINT OF CURVE; THENCE TRACING THE CENTER LINE OF SAID EASEMENT, ON A 11°30' CURVE TO THE LEFT, A DISTANCE OF 71.23 FEET TO A POINT FROM WHICH AN IRON PIPE DRIVEN ON THE WEST SIDE OF SAID EASEMENT BEARS SOUTH 80°40' WEST 10.27 FEET; THENCE NORTH 80°40' EAST 95.08 FEET TO A POINT ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY AFORESAID; THENCE TRACING THE WESTERLY SIDE LINE OF SAID HIGHWAY SOUTH 9°20' EAST 104.50 FEET TO THE PLACE OF BEGINNING.

TOGETHER WITH A PART OF THE DONATION LAND CLAIM OF LOT WHITCOMB AND WIFE, IN SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE COUNTY OF CLACKAMAS, AND STATE OF OREGON, BOUNDED AND DESCRIBED AS FOLLOWS, TO–WIT:

BEGINNING AT A POINT ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY, WHICH POINT IS NORTH 09°20' WEST 469.50 FEET DISTANT AND SOUTH 80°40' WEST 80.00 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE"; RUNNING THENCE SOUTH 80°40' WEST 100.00 FEET TO THE ANGULAR CORNER OF THE SOUTH LINE OF A TRACT OF LAND DESCRIBED IN THE WILL OF ISAAC GRATTON, PROBATE NO. 23213, MULTNOMAH COUNTY, OREGON, AS SET OFF TO PAUL J. GRATTON, FROM WHICH POINT AN IRON PIPE DRIVEN ON THE WESTERLY SIDE OF THE EASEMENT OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY BEARS SOUTH 0°40' WEST 5.35 FEET; THENCE NORTH 0°20' WEST TRACING THE EASTERLY BOUNDARY OF THE PAUL J. GRATTON TRACT, 25.00 FEET TO THE RE–ENTRANT CORNER OF SAID TRACT; THENCE TRACING THE SOUTHERLY BOUNDARY OF SAID TRACT NORTH 80°40' EAST 100.00 FEET TO THE SOUTHEAST CORNER THEREOF, BEING A POINT ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY; THENCE TRACING THE WESTERLY SIDE LINE OF SAID HIGHWAY, SOUTH 0°20' EAST, 25 FEET TO THE PLACE OF BEGINNING.

ALSO TOGETHER WITH A PART OF THE LOT WHITCOMB DONATION LAND CLAIM, IN SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE COUNTY OF CLACKAMAS, AND STATE OF OREGON, DESCRIBED AS FOLLOWS:

BEGINNING ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY, WHICH POINT IS NORTH 09°20' WEST 494.50 FEET DISTANT AND SOUTH 80°40' WEST 80.00 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE", SAID POINT BEING THE SOUTHEAST CORNER OF A TRACT OF LAND DESCRIBED IN THE WILL OF ISAAC GRATTON, PROBATE NO. 23213, MULTNOMAH COUNTY, OREGON, AS SET OFF TO PAUL J. GRATTON; THENCE RUNNING SOUTH 80°40' WEST, TRACING THE SOUTHERLY BOUNDARY OF SAID TRACT, 90 FEET TO THE TRUE POINT OF BEGINNING OF THE TRACT DESCRIBED HEREIN; THENCE NORTH 09°20' WEST, 103 FEET TO A POINT, SAID POINT BEING THE NORTHWEST CORNER OF THAT CERTAIN TRACT OF LAND CONVEYED TO MILWAUKIE MOTOR CO., BY DEED RECORDED IN BOOK 463, PAGE 150 AND 152, DEED RECORDS; THENCE SOUTH 80°40' WEST TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF THE PORTLAND RAILWAY, LIGHT AND POWER COMPANY; THENCE SOUTH 9°20' WEST TRACING THE EASTERLY RIGHT OF WAY LINE TO THE TRUE POINT OF BEGINNING.

PARCEL 11: (11E35AA–02800)

A PART OF THE DONATION LAND CLAIM OF LOT WHITCOMB AND WIFE, IN SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS, AND STATE OF OREGON, BOUNDED AND DESCRIBED AS FOLLOWS, TO–WIT:

BEGINNING ON THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY, WHICH POINT IS NORTH 09°20' WEST 494.50 FEET DISTANT AND SOUTH 80°40' WEST 80.00 FEET DISTANT FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE", SAID POINT BEING THE SOUTHEAST CORNER OF A TRACT OF LAND DESCRIBED IN THE WILL OF ISAAC GRATTON, PROBATE NO. 23213, MULTNOMAH COUNTY, OREGON, AS SET OFF TO PAUL J. GRATTON; THENCE RUNNING SOUTH 80°40' WEST, TRACING THE SOUTHERLY BOUNDARY OF SAID TRACT, 90 FEET; THENCE NORTH 09°20' WEST, 103 FEET; THENCE NORTH 80°40' EAST 90 FEET TO THE WESTERLY SIDE LINE OF THE EAST PORTLAND–OREGON CITY HIGHWAY; THENCE SOUTH 9°20' EAST ALONG SAID WESTERLY SIDE LINE 103 FEET TO THE POINT OF BEGINNING.

PARCEL 12: (11E35AA–04600)

PART OF THE LOT WHITCOMB AND WIFE DONATION LAND CLAIM, IN SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, IN THE CITY OF MILWAUKIE, COUNTY OF CLACKAMAS, AND STATE OF OREGON, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY SIDE OF THE PORTLAND ELECTRIC POWER COMPANY RIGHT OF WAY, WHICH POINT IS NORTH 09°20' WEST 494.50 FEET AND SOUTH 80°40' WEST 80.00 FEET AND SOUTH 80°40' WEST 100.00 FEET AND SOUTH 9°20' EAST 25.00 FEET FROM THE SOUTHWEST CORNER OF BLOCK 28, "MILWAUKIE", WHICH BEGINNING POINT IS ON THE SOUTH LINE OF SAID LAND CONVEYED TO W.J. EASTMAN BY DEED RECORDED OCTOBER 13, 1943 IN BOOK 314, PAGE 636, CLACKAMAS COUNTY RECORDS; THENCE FROM SAID BEGINNING POINT RUN SOUTH 80°40' WEST ON THE SOUTH LINE OF SAID EASTMAN LAND 134.85 FEET TO THE SOUTHWEST CORNER THEREOF ON THE MEANDER LINE OF THE RIGHT BANK OF THE WILLAMETTE RIVER AT LOW WATER MARK, FROM WHICH POINT A FORD AXLE DRIVEN IN THE GROUND BEARS NORTH 80°40' EAST 16.55 FEET; THENCE TRACING THE MEANDER LINE OF SAID RIVER DOWNSTREAM NORTH 22°20' WEST 110.25 FEET TO A POINT IN THE CENTER OF JOHNSON CREEK; THENCE IN THE CENTER OF SAID CREEK UPSTREAM NORTH 50°45' EAST 41.26 FEET; THENCE NORTH 80°40' EAST TO THE WESTERLY SIDE OF SAID PORTLAND ELECTRIC POWER COMPANY'S RIGHT OF WAY; THENCE SOUTHERLY ALONG THE WESTERLY SIDE OF SAID RIGHT OF WAY TO THE TRUE POINT OF BEGINNING.

PARCEL 13: (11E35AA–05000)

A PARCEL OF LAND IN THE LOT WHITCOMB DONATION LAND CLAIM NO. 38, AND IN THE NORTHEAST ONE–QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CITY OF MILWAUKIE, CLACKAMAS COUNTY, OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

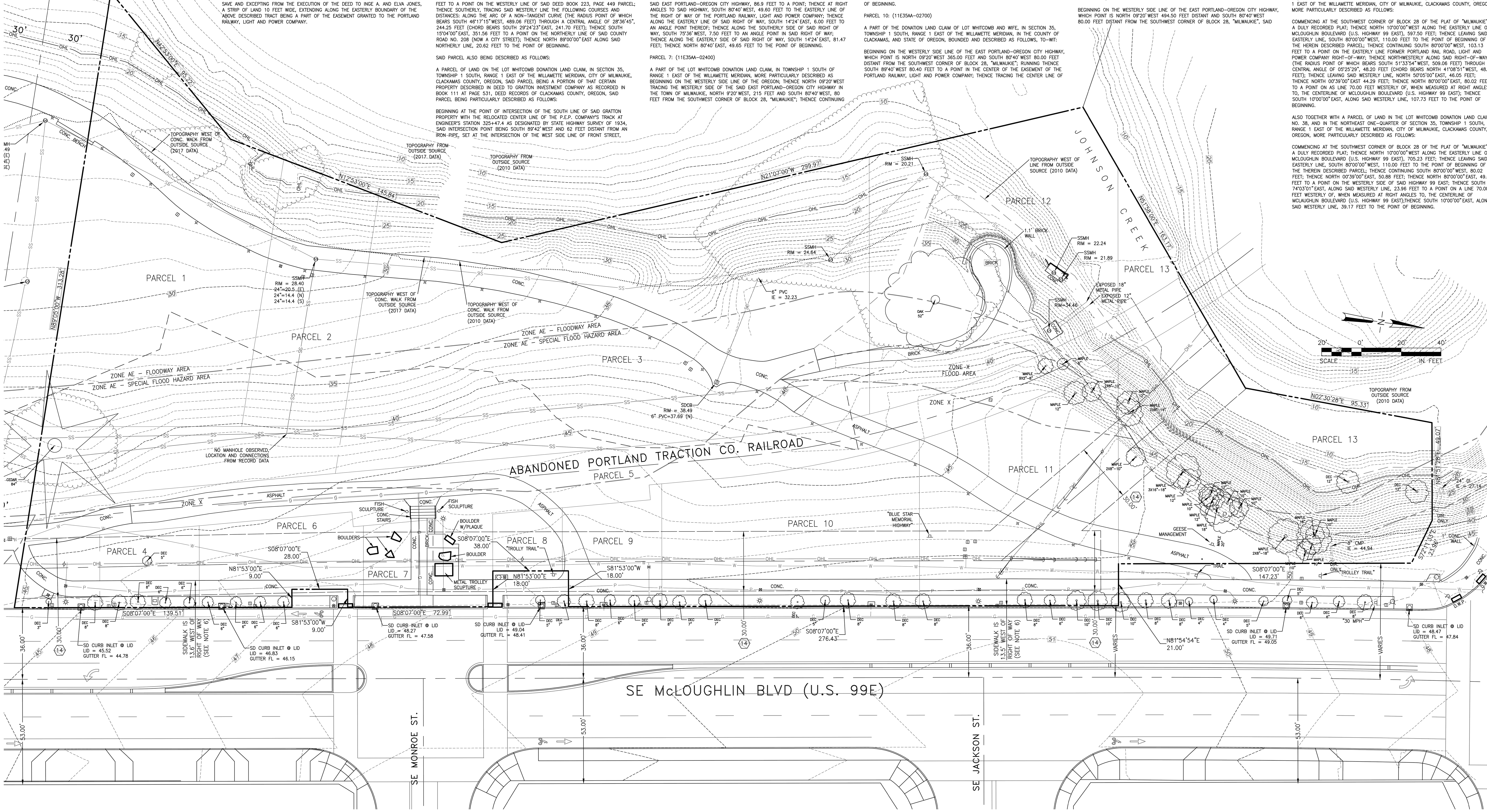
COMMENCING AT THE SOUTHWEST CORNER OF BLOCK 28 OF THE PLAT OF "MILWAUKIE", A DULY RECORDED PLAT; THENCE NORTH 10°00'00" WEST ALONG THE EASTERLY LINE OF MCLOUGHLIN BOULEVARD (U.S. HIGHWAY 99 EAST), 597.50 FEET; THENCE LEAVING SAID EASTERLY LINE, SOUTH 80°00'00" WEST, 236.08 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL; THENCE CONTINUING SOUTH 80°00'00" WEST, 73.70 FEET; THENCE NORTH 50°05'00" EAST 62.63 FEET TO A POINT ON THE WESTERLY LINE OF THE FORMER PORTLAND RAIL ROAD, LIGHT AND POWER COMPANY RIGHT–OF–WAY; THENCE SOUTHEASTERLY ALONG SAID RIGHT–OF–WAY, ALONG THE ARC OF A NON–TANGENT CURVE (THE RADIUS OF WHICH BEARS SOUTH 45°58'43" WEST, 489.06 FEET) THROUGH A CENTRAL ANGLE OF 04°18'35", 36.79 FEET (CHORD BEARS SOUTH 41°51'59" EAST, 36.78 FEET) TO THE POINT OF BEGINNING.

TOGETHER WITH A PARCEL OF LAND IN THE LOT WHITCOMB DONATION LAND CLAIM NO. 38, AND IN THE NORTHEAST ONE–QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CITY OF MILWAUKIE, CLACKAMAS COUNTY, OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF BLOCK 28 OF THE PLAT OF "MILWAUKIE", A DULY RECORDED PLAT; THENCE NORTH 10°00'00" WEST ALONG THE EASTERLY LINE OF MCLOUGHLIN BOULEVARD (U.S. HIGHWAY 99 EAST), 597.50 FEET; THENCE LEAVING SAID EASTERLY LINE, SOUTH 80°00'00" WEST, 110.00 FEET TO THE POINT OF BEGINNING OF THE HEREIN DESCRIBED PARCEL; THENCE CONTINUING SOUTH 80°00'00" WEST, 103.13 FEET TO A POINT ON THE EASTERLY LINE FORMER PORTLAND RAIL ROAD, LIGHT AND POWER COMPANY RIGHT–OF–WAY; THENCE NORTHWESTERLY ALONG SAID RIGHT–OF–WAY (THE RADIUS POINT OF WHICH BEARS SOUTH 51°33'54" WEST, 509.06 FEET) THROUGH A CENTRAL ANGLE OF 05°25'29", 48.20 FEET (CHORD BEARS NORTH 41°08'51" WEST, 48.18 FEET); THENCE LEAVING SAID WESTERLY LINE, NORTH 50°05'00" EAST, 46.05 FEET; THENCE NORTH 00°39'00" EAST 44.29 FEET; THENCE NORTH 80°00'00" EAST, 80.02 FEET TO A POINT ON AS LINE 70.00 FEET WESTERLY OF, WHEN MEASURED AT RIGHT ANGLES TO, THE CENTERLINE OF MCLOUGHLIN BOULEVARD (U.S. HIGHWAY 99 EAST); THENCE SOUTH 10°00'00" EAST, ALONG SAID WESTERLY LINE, 107.73 FEET TO THE POINT OF BEGINNING.

ALSO TOGETHER WITH A PARCEL OF LAND IN THE LOT WHITCOMB DONATION LAND CLAIM NO. 38, AND IN THE NORTHEAST ONE–QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST OF THE WILLAMETTE MERIDIAN, CITY OF MILWAUKIE, CLACKAMAS COUNTY, OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF BLOCK 28 OF THE PLAT OF "MILWAUKIE", A DULY RECORDED PLAT; THENCE NORTH 10°00'00" WEST ALONG THE EASTERLY LINE OF MCLOUGHLIN BOULEVARD (U.S. HIGHWAY 99 EAST), 705.23 FEET; THENCE LEAVING SAID EASTERLY LINE, SOUTH 80°00'00" WEST, 110.00 FEET TO THE POINT OF BEGINNING OF THE THEREIN DESCRIBED PARCEL; THENCE CONTINUING SOUTH 80°00'00" WEST, 80.02 FEET; THENCE NORTH 00°39'00" EAST, 50.88 FEET; THENCE NORTH 80°00'00" EAST, 49.07 FEET TO A POINT ON THE WESTERLY SIDE OF SAID HIGHWAY 99 EAST; THENCE SOUTH 74°03'01" EAST, ALONG SAID WESTERLY LINE, 23.96 FEET TO A POINT ON A LINE 70.00 FEET WESTERLY OF, WHEN MEASURED AT RIGHT ANGLES TO, THE CENTERLINE OF MCLAUGHLIN BOULEVARD (U.S. HIGHWAY 99 EAST);THENCE SOUTH 10°00'00" EAST, ALONG SAID WESTERLY LINE, 39.17 FEET TO THE POINT OF BEGINNING.



ALTA/NSPS LAND TITLE SURVEY

MILWAUKIE BAY PARK
IN THE EAST 1/2 OF SECTION 35
TOWNSHIP 1 SOUTH, RANGE 1 EAST, WILLAMETTE MERIDIAN
CITY OF MILWAUKIE, CLACKAMAS COUNTY, OREGON

CCW	06–01–2018
Field	Date
JMY	07–16–2018
Calculated	Date
MDR	07–16–2018
Drawm	Date
JMY	07–1+–2018
Checked	Date

REVISIONS

18809
Project No.

S18809A140
Drawing No.

2 OF 2
Sheet No.

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MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW/JB

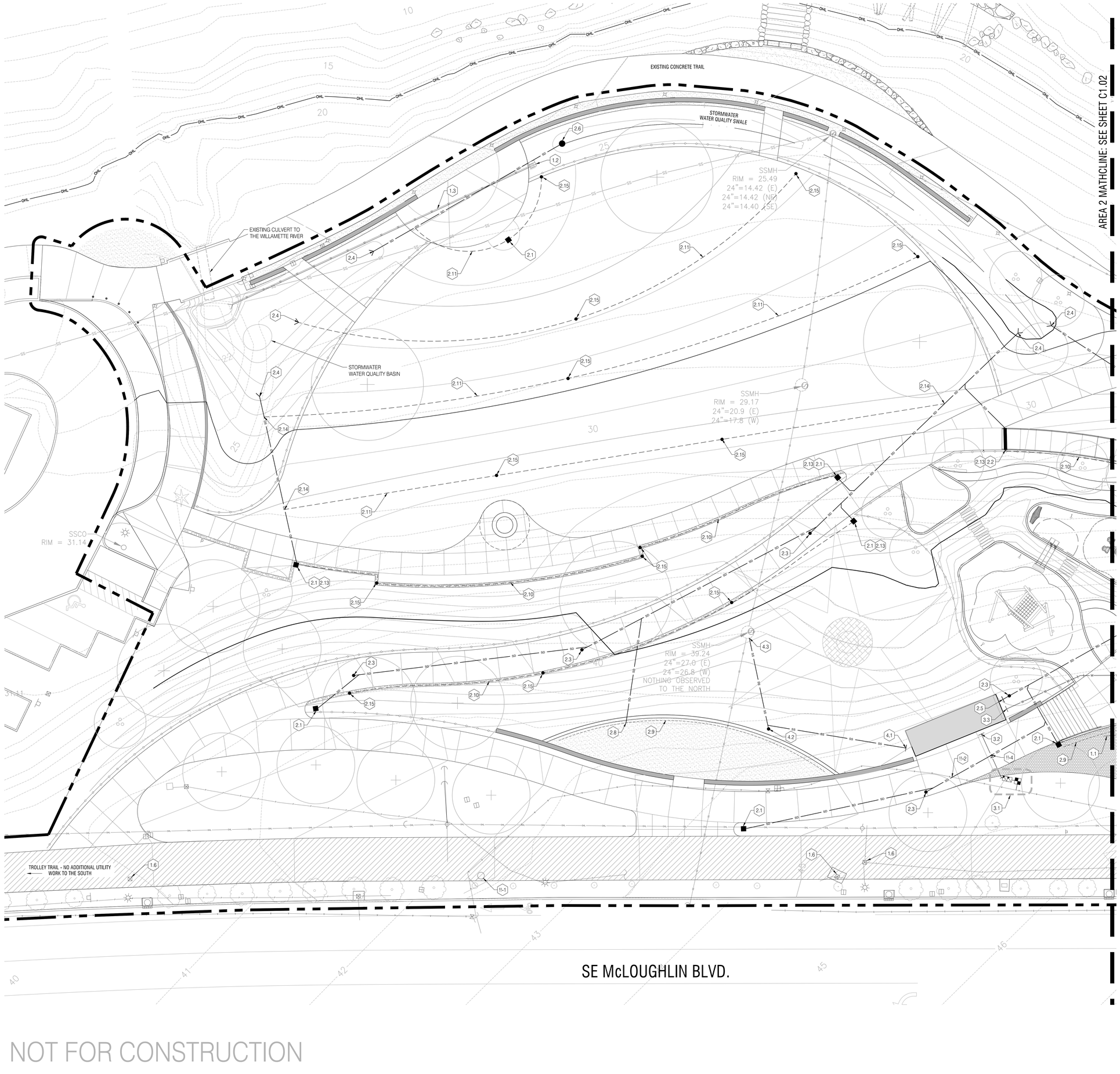
REVISIONS		
DATE	DESCRIPTION	BY

EXISTING CONDITIONS - NORTH

V0.20

ONE INCH DRAWING SET SCALE: IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

NOT FOR CONSTRUCTION



UTILITY LEGEND

SYM.	DESCRIPTION
	EXISTING STORM DRAIN
	EXISTING SANITARY SEWER
	EXISTING WATER MAIN
	EXISTING GAS
OHL	EXISTING OVERHEAD LINE
	EXISTING POWER
SD	PROPOSED STORMDRAIN
	PROPOSED PERFORATED UNDERDRAIN
SS	PROPOSED SANITARY SEWER
W	PROPOSED WATER
	PROPOSED CLEANOUT
	PROPOSED AREA DRAIN
	PROPOSED BEEHIVE OVERFLOW
	PROPOSED STORM OUTFALL
	PROPOSED TRENCH DRAIN
	PROPOSED UTILITY CONNECTION

1.0 UTILITY DEMOLITION/RELOCTION KEY NOTES

1.1 REMOVE ABONDONED GAS LINES

1.2 REMOVE EXISTING FIELD INLET

1.3 REMOVE EXISTING 12-INCH STORM PIPE

1.4 REMOVE EXISTING CATCH BASIN

1.5 ABANDON EXISTING STORM PIPE IN PLACE

1.6 ADJUST EXISTING UTILITY BOX TO GRADE, AS NECESSARY

1.7 EXISTING LIGHT FIXTURE TO BE REMOVED AND/OR RELOCATED.

2.0 STORM DRAINAGE KEY NOTES

2.1 AREA DRAIN

2.2 TRENCH DRAIN

2.3 STORM CLEANOUT

2.4 STORM OUTFALL

2.5 ROOF DRAIN CONNECTION

2.6 BEEHIVE OVERFLOW STRUCTURE

2.7 WATER FEATURE DRAINAGE CONNECTION

2.8 FOOTING DRAIN CONNECTION

2.9 FOOTING DRAIN, TYP.

2.10 FRENCH DRAIN, TYP.

2.11 SUBSURFACE DRAIN, TYP.

2.12 WET SEASON WATER FEATURE STORM CONNECTION

2.13 PLAYGROUND UNDERDRAIN, TYP.

2.14 SUBSURFACE DRAIN CONNECTION

2.15 BURIED CLEANOUT

3.0 WATER SERVICE KEY NOTES

3.1 NEW 3-INCH METER AND WATER SERVICE CONNECTION TO EXISTING 10-INCH MAIN. REDUCED PRESSURE BACKFLOW ASSEMBLY TO BE LOCATED WITHIN THE UTILITY CLOSET IN THE RESTROOM STRUCTURE. REFER TO LANDSCAPE DRAWINGS FOR CONNECTION TO IRRIGATION AND CONNECTION SCHEMATIC FROM NEW SERVICE.

3.2 BUILDING SERVICE AND WATER FEATURE CONTROL ROOM CONNECTION

3.3 2-INCH WATER SERVICE CONNECTION TO WATER FEATURE. REFER TO WATER FEATURE AND BUILDING PLANS FOR EXACT CONNECTION POINTS.

4.0 SANITARY SEWER KEY NOTES

4.1 4-INCH SANITARY SEWER BUILDING CONNECTION

4.2 SANITARY CLEANOUT

4.3 SANITARY SEWER CONNECTION TO EXISTING MANHOLE

4.4 WATER FEATURE DRAIN CONNECTION. REFER TO WATER FEATURE PLANS FOR CONTINUATION.

4.5 WATER FEATURE DRAIN CONTROL VAULT, REFER TO WATER FEATURE PLANS FOR EQUIPMENT, PLUMBING AND ELECTRICAL CONNECTIONS

!! UTILTY COORDINATION / VERIFICATION

!!-1 RELOCATE EXISTING FIRE HYDRANT OUTSIDE OF THE NEW TROLLEY TRAIL ALIGNMENT. ***VERIFY LOCATION OF EXISTING HYDRANT***

!!-2 NEW 4-INCH STORM DRAIN CROSSING WITH EXISTING 10-INCH WATER MAIN. ***NEED TO VERIFY DEPTHS OF EXISTING WATER MAIN***

!!-3 BLIND SEWER CONNECTION. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF STRUCTURE, IF ANY FOR NEW SEWER CONNECTION.

!!-4 NEW UTILITY CROSSING
2-INCH WATER ABOVE 4-INCH STORM DRAIN

!!-5 RELOCATE EXISTING SIGNAL MAST. REFER TO ODOT/TRAFFIC SIGNAL PLANS.

NOT FOR CONSTRUCTION

SCALE 1"=10'

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ph: 503-906-3470 • allan@zuckerengineering.com

MILWAUKIE BAY PARK

100% Design Development

11211 SE McLoughlin Blvd, Milwaukie, OR 97222

DRAWN BY:

SCALE: AS NOTED

DATE: 06/01/2022

REVISIONS

DATE	DESCRIPTION	BY
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

UTILITY PLAN
AREA 1

C1.01

ONE INCH
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SET SIZE:

AREA 1 MATCHLINE: SEE SHEET C1.01

AREA 3 MATHCLINE: SEE SHEET C1.03

EXISTING CONCRETE TRAIL

TROLLEY TRAIL

SSMH
RIM = 28.40
24"=20.5 (E)
24"=14.4 (N)
24"=14.4 (S)

2: SEE SHEET L4.02

3: SEE SHEET L4.03

SE McLOUGHLIN BLVD.

UTILITY LEGEND

SYM.	DESCRIPTION
	EXISTING STORM DRAIN
	EXISTING SANITARY SEWER
	EXISTING WATER MAIN
	EXISTING GAS
	EXISTING OVERHEAD LINE
	EXISTING POWER
SD	PROPOSED STORMDRAIN
	PROPOSED PERFORATED UNDERDRAIN
SS	PROPOSED SANITARY SEWER
W	PROPOSED WATER
	PROPOSED CLEANOUT
	PROPOSED AREA DRAIN
	PROPOSED BEEHIVE OVERFLOW
	PROPOSED STORM OUTFALL
	PROPOSED TRENCH DRAIN
	PROPOSED UTILITY CONNECTION

1.0 UTILITY DEMOLITION/RELOCTION KEY NOTES

1.1 REMOVE ABONDONED GAS LINES

1.2 REMOVE EXISTING FIELD INLET

1.3 REMOVE EXISTING 12-INCH STORM PIPE

1.4 REMOVE EXISTING CATCH BASIN

1.5 ABANDON EXISTING STORM PIPE IN PLACE

1.6 ADJUST EXISTING UTILITY BOX TO GRADE, AS NECESSARY

1.7 EXISTING LIGHT FIXTURE TO BE REMOVED AND/OR RELOCATED.

2.0 STORM DRAINAGE KEY NOTES

2.1 AREA DRAIN

2.2 TRENCH DRAIN

2.3 STORM CLEANOUT

2.4 STORM OUTFALL

2.5 ROOF DRAIN CONNECTION

2.6 BEEHIVE OVERFLOW STRUCTURE

2.7 WATER FEATURE DRAINAGE CONNECTION

2.8 FOOTING DRAIN CONNECTION

2.9 FOOTING DRAIN, TYP.

2.10 FRENCH DRAIN, TYP.

2.11 SUBSURFACE DRAIN, TYP.

2.12 WET SEASON WATER FEATURE STORM CONNECTION

2.13 PLAYGROUND UNDERDRAIN, TYP.

2.14 SUBSURFACE DRAIN CONNECTION

2.15 BURIED CLEANOUT

3.0 WATER SERVICE KEY NOTES

3.1 NEW 3-INCH METER AND WATER SERVICE CONNECTION TO EXISTING 10-INCH MAIN. REDUCED PRESSURE BACKFLOW ASSEMBLY TO BE LOCATED WITHIN THE UTILITY CLOSET IN THE RESTROOM STRUCTURE. REFER TO LANDSCAPE DRAWINGS FOR CONNECTION TO IRRIGATION AND CONNECTION SCHEMATIC FROM NEW SERVICE.

3.2 BUILDING SERVICE AND WATER FEATURE CONTROL ROOM CONNECTION

3.3 2-INCH WATER SERVICE CONNECTION TO WATER FEATURE. REFER TO WATER FEATURE AND BUILDING PLANS FOR EXACT CONNECTION POINTS.

4.0 SANITARY SEWER KEY NOTES

4.1 4-INCH SANITARY SEWER BUILDING CONNECTION

4.2 SANITARY CLEANOUT

4.3 SANITARY SEWER CONNECTION TO EXISTING MANHOLE

4.4 WATER FEATURE DRAIN CONNECTION, REFER TO WATER FEATURE PLANS FOR CONTINUATION.

4.5 WATER FEATURE DRAIN CONTROL VAULT, REFER TO WATER FEATURE PLANS FOR EQUIPMENT, PLUMBING AND ELECTRICAL CONNECTIONS

!! UTILTY COORDINATION / VERIFICATION

!!-1 RELOCATE EXISTING FIRE HYDRANT OUTSIDE OF THE NEW TROLLEY TRAIL ALIGNMENT. ***VERIFY LOCATION OF EXISTING HYDRANT***

!!-2 NEW 4-INCH STORM DRAIN CROSSING WITH EXISTING 10-INCH WATER MAIN. ***NEED TO VERIFY DEPTHS OF EXISTING WATER MAIN***

!!-3 BLIND SEWER CONNECTION. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF STRUCTURE, IF ANY FOR NEW SEWER CONNECTION.

!!-4 NEW UTILITY CROSSING
2-INCH WATER ABOVE 4-INCH STORM DRAIN

!!-5 RELOCATE EXISTING SIGNAL MAST. REFER TO ODOT/TRAFFIC SIGNAL PLANS.

NOT FOR CONSTRUCTION

SCALE 1"=10'

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DATE: 06/01/2022 SCALE: AS NOTED DRAWN BY:

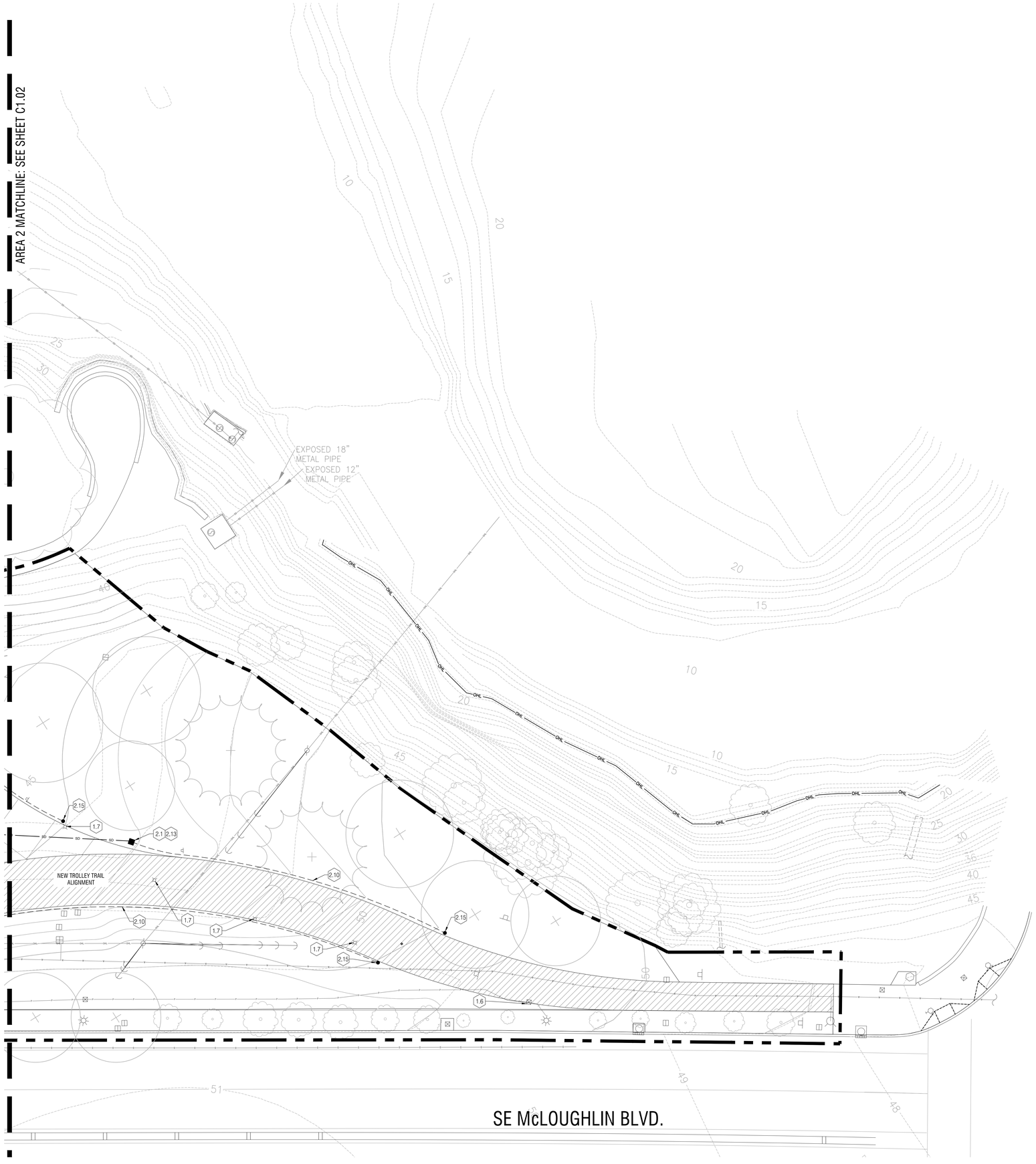
REVISIONS

DATE	DESCRIPTION	BY

UTILITY PLAN
AREA 2

C1.02

ONE INCH | IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS. | DRAWING SET SCALE:



UTILITY LEGEND

SYM.	DESCRIPTION
	EXISTING STORM DRAIN
	EXISTING SANITARY SEWER
	EXISTING WATER MAIN
	EXISTING GAS
	EXISTING OVERHEAD LINE
	EXISTING POWER
SD	PROPOSED STORMDRAIN
	PROPOSED PERFORATED UNDERDRAIN
SS	PROPOSED SANITARY SEWER
W	PROPOSED WATER
	PROPOSED CLEANOUT
	PROPOSED AREA DRAIN
	PROPOSED BEEHIVE OVERFLOW
	PROPOSED STORM OUTFALL
	PROPOSED TRENCH DRAIN
	PROPOSED UTILITY CONNECTION

1.0 UTILITY DEMOLITION/RELOCTION KEY NOTES

1.1 REMOVE ABONDONED GAS LINES

1.2 REMOVE EXISTING FIELD INLET

1.3 REMOVE EXISTING 12-INCH STORM PIPE

1.4 REMOVE EXISTING CATCH BASIN

1.5 ABANDON EXISTING STORM PIPE IN PLACE

1.6 ADJUST EXISTING UTILITY BOX TO GRADE, AS NECESSARY

1.7 EXISTING LIGHT FIXTURE TO BE REMOVED AND/OR RELOCATED.

2.0 STORM DRAINAGE KEY NOTES

2.1 AREA DRAIN

2.2 TRENCH DRAIN

2.3 STORM CLEANOUT

2.4 STORM OUTFALL

2.5 ROOF DRAIN CONNECTION

2.6 BEEHIVE OVERFLOW STRUCTURE

2.7 WATER FEATURE DRAINAGE CONNECTION

2.8 FOOTING DRAIN CONNECTION

2.9 FOOTING DRAIN, TYP.

2.10 FRENCH DRAIN, TYP.

2.11 SUBSURFACE DRAIN, TYP.

2.12 WET SEASON WATER FEATURE STORM CONNECTION

2.13 PLAYGROUND UNDERDRAIN, TYP.

2.14 SUBSURFACE DRAIN CONNECTION

2.15 BURIED CLEANOUT

3.0 WATER SERVICE KEY NOTES

3.1 NEW 3-INCH METER AND WATER SERVICE CONNECTION TO EXISTING 10-INCH MAIN. REDUCED PRESSURE BACKFLOW ASSEMBLY TO BE LOCATED WITHIN THE UTILITY CLOSET IN THE RESTROOM STRUCTURE. REFER TO LANDSCAPE DRAWINGS FOR CONNECTION TO IRRIGATION AND CONNECTION SCHEMATIC FROM NEW SERVICE.

3.2 BUILDING SERVICE AND WATER FEATURE CONTROL ROOM CONNECTION

3.3 2-INCH WATER SERVICE CONNECTION TO WATER FEATURE. REFER TO WATER FEATURE AND BUILDING PLANS FOR EXACT CONNECTION POINTS.

4.0 SANITARY SEWER KEY NOTES

4.1 4-INCH SANITARY SEWER BUILDING CONNECTION

4.2 SANITARY CLEANOUT

4.3 SANITARY SEWER CONNECTION TO EXISTING MANHOLE

4.4 WATER FEATURE DRAIN CONNECTION, REFER TO WATER FEATURE PLANS FOR CONTINUATION.

4.5 WATER FEATURE DRAIN CONTROL VAULT, REFER TO WATER FEATURE PLANS FOR EQUIPMENT, PLUMBING AND ELECTRICAL CONNECTIONS

!! UTILTY COORDINATION / VERIFICATION

!!-1 RELOCATE EXISTING FIRE HYDRANT OUTSIDE OF THE NEW TROLLEY TRAIL ALIGNMENT. ***VERIFY LOCATION OF EXISTING HYDRANT***

!!-2 NEW 4-INCH STORM DRAIN CROSSING WITH EXISTING 10-INCH WATER MAIN. ***NEED TO VERIFY DEPTHS OF EXISTING WATER MAIN***

!!-3 BLIND SEWER CONNECTION. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF STRUCTURE, IF ANY FOR NEW SEWER CONNECTION.

!!-4 NEW UTILITY CROSSING
2-INCH WATER ABOVE 4-INCH STORM DRAIN

!!-5 RELOCATE EXISTING SIGNAL MAST. REFER TO ODOT/TRAFFIC SIGNAL PLANS.

NOT FOR CONSTRUCTION

SCALE 1"=10'

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DATE: 06/01/2022 SCALE: AS NOTED DRAWN BY:

REVISIONS

DATE	DESCRIPTION	BY

UTILITY PLAN
AREA 3

C1.03

ONE INCH | DRAWING SET SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

LEGEND

- PROPERTY LINE OR R.O.W.
- TREE PROTECTION FENCING (ASSUME AT ALL EXISTING TREES TO REMAIN)
- SAWCUT LINE
- NOT USED
- EXISTING CURB, THICKENED EDGE OR WALL TO BE REMOVED
- EXISTING TREE TO REMAIN, PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED
- CLEAR AND GRUB
- EXISTING AC TO BE REMOVED, FULL DEPTH, INCLUDE ALL BASE ROCK
- EXISTING CONCRETE PAVING TO REMAIN, PROTECT IN PLACE
- FULL-DEPTH REMOVAL OF EXISTING CONCRETE OR PAVERS TO INCLUDE ALL BASE ROCK
- UNUSED

DEMOLITION NOTES

1. SEE CIVIL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ABOUT UTILITY PRESERVATION AND DEMOLITION.
2. FOR TREE IDENTIFICATION, REFER TO ARBORIST'S TREE REPORT
3. SEE SPECIFICATIONS FOR TREE PROTECTION PROCEDURES. TREE PROTECTION FENCING SHOWN ON THIS PLAN IS THE APPROXIMATE QUANTITY REQUIRED FOR TREE PROTECTION. CONTRACTOR TO SUBMIT REVISED PLAN INDICATING FENCING LOCATIONS, AS WELL AS ACTUAL WORK LOCATIONS, TIMING, AND PROCEDURES FOR WORK AROUND TREES OR WHERE WORK TAKES PLACE WITHIN THE FENCED TREE PROTECTION ZONE OF SELECTED TREES. ALL DEVIATIONS FROM THIS PLAN MUST BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT AND OWNER'S ARBORIST PRIOR TO IMPLEMENTATION.
4. WHERE EXCAVATION FOR NEW CONSTRUCTION IS REQUIRED WITHIN THE TREE PROTECTION ZONE, FENCED OR UNFENCED, CONSULTATION WITH THE OWNERS ARBORIST IS REQUIRED. ALL TRENCHING OR EXCAVATING WITHIN TREE PROTECTION ZONES SHALL BE DONE BY HAND. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ANY ROOT CUTTING ALLOWED BY THE PROJECT ARBORIST 2-INCHES AND LARGER REQUIRES A PERMIT AND INSPECTION BY THE OWNER'S ARBORIST.

KEYNOTES

DEMOLITION NOTES

1. EXISTING TREE TO BE REMOVED, SEE TREE REMOVAL SCHEDULE
2. EXISTING SCULPTURE AND FOOTING TO BE REMOVED, RETURN TO OWNER, NEW INSTALLATION LOCATION TBD
3. EXISTING BOULDER WITH PLAQUE TO BE REMOVED, RETURN TO OWNER, NEW INSTALLATION LOCATION TBD
4. EXISTING BOULDER TO BE REMOVED (POSSIBLE SALVAGE FOR REUSE TBD), NEW INSTALLATION LOCATION TBD
5. EXISTING SIGNAL POLE AND ASSOCIATED JUNCTION BOXES, TO BE REMOVED
6. EXISTING STAIR AND HANDRAILS, TO BE REMOVED
7. EXISTING HISTORIC LIGHT POLE, TO BE RELOCATED (LOCATION PENDING)
8. EXISTING CONCRETE BENCH, TO BE REMOVED
9. EXISTING BOLLARD LIGHT, TO BE RELOCATED (SEE ELECTRICAL)
10. EXISTING CONCRETE SEATWALL, TO BE REMOVED, FULL DEPTH, INCLUDING BASEROCK
11. EXISTING BOLLARD, TO BE REMOVED
12. EXISTING BOULDERS TO BE REMOVED AND SALVAGED
13. NOT USED
14. NOT USED
15. NOT USED
16. NOT USED
17. NOT USED
18. NOT USED
19. NOT USED
20. NOT USED
21. NOT USED
22. NOT USED

PRESERVATION NOTES

- A. EXISTING LIGHT TO REMAIN, PROTECT IN PLACE
- B. EXISTING WALK TO REMAIN, PROTECT IN PLACE
- C. EXISTING STORMWATER SYSTEM, TO BE REVISED PER CIVIL DWGS
- D. EXISTING POWER POLE TO REMAIN, PROTECT IN PLACE
- E. EXISTING TREE TO REMAIN, PROTECT IN PLACE. SEE TREE PRESERVATION SCHEDULE .
- F. NOT USED
- G. NOT USED
- H. NOT USED

EXISTING SIGNAGE

- A. EXISTING TROLLEY TRAIL DIRECTIONAL SIGN, TO BE UPDATED PER CURRENT METRO STANDARDS & RELOCATED
- B. EXISTING GEESE SIGN, TO BE RELOCATED, NCPRD TO DETERMINE RELOCATION
- C. EXISTING BLUE STAR HIGHWAY SIGN AND BURIED TIME CAPSULE, NCPRD TO DETERMINE RELOCATION
- D. EXISTING TRAFFIC SIGN, PROTECT IN PLACE
- E. EXISTING PARK RULES SIGN, TO BE RELOCATED, NCPRD TO DETERMINE RELOCATION

TREE PRESERVATION SCHEDILE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
P-1	SEQUOIA SEMPERVIRENS / COAST REDWOOD	75" DIAMETER	GOOD HEALTH & FAIR CONDITION	PRESERVE & PROTECT IN PLACE
P-2	TBD / MAPLE	16" DIAMETER	GOOD HEALTH & FAIR CONDITION	PRESERVE & PROTECT IN PLACE

TREE REMOVAL SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
R-1	SEQUOIA SEMPERVIRENS / COAST REDWOOD	10" DIAMETER	GOOD HEALTH & GOOD CONDITION	REMOVE & REPLANT

1. THE INFORMATION ABOVE IS BASED ON AN ARBORIST REPORT COMPLETED BY STEVE GOETZ ON 05/21/2022. REMOVAL OF THE EXISTING TREE SHALL COMPLY WITH CITY OF MILWAUKIE URBAN FOREST STANDARDS. A TREE REMOVAL PERMIT SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
2. SEE SHEET L1.05 FOR TREE PROTECTION DETAIL.

NOT FOR CONSTRUCTION

SCALE 1"= 10'

2.ink Studio | Landscape Architecture
1816 NE Sixth Avenue Suite 200
Portland, OR 97232
503.SAK.4645
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT JONATHAN BEAVER 5/6/2015 OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

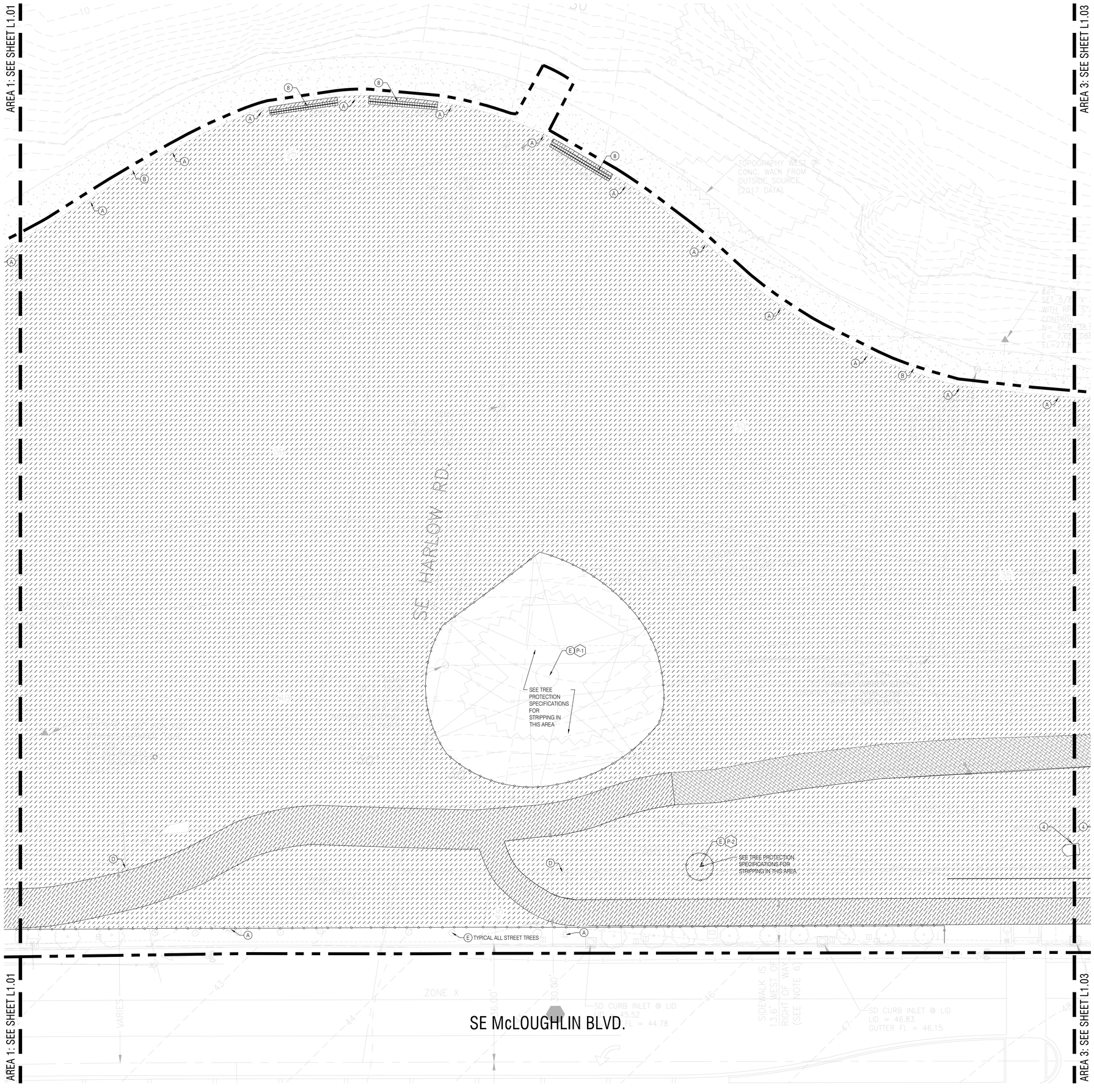
DRAWN BY: JB/CO
SCALE: AS NOTED
DATE: 06/03/2022

REVISIONS

DATE	DESCRIPTION	BY

DEMOLITION PLAN AREA 1

L1.01



LEGEND

- PROPERTY LINE OR R.O.W.
- TREE PROTECTION FENCING (ASSUME AT ALL EXISTING TREES TO REMAIN)
- SAWCUT LINE
- NOT USED
- EXISTING CURB, THICKENED EDGE OR WALL TO BE REMOVED
- EXISTING TREE TO REMAIN, PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED
- CLEAR AND GRUB
- EXISTING AC TO BE REMOVED, FULL DEPTH, INCLUDE ALL BASE ROCK
- EXISTING CONCRETE PAVING TO REMAIN, PROTECT IN PLACE
- FULL-DEPTH REMOVAL OF EXISTING CONCRETE OR PAVERS TO INCLUDE ALL BASE ROCK
- UNUSED

DEMOLITION NOTES

1. SEE CIVIL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION ABOUT UTILITY PRESERVATION AND DEMOLITION.
2. FOR TREE IDENTIFICATION, REFER TO ARBORIST'S TREE REPORT
3. SEE SPECIFICATIONS FOR TREE PROTECTION PROCEDURES. TREE PROTECTION FENCING SHOWN ON THIS PLAN IS THE APPROXIMATE QUANTITY REQUIRED FOR TREE PROTECTION. CONTRACTOR TO SUBMIT REVISED PLAN INDICATING FENCING LOCATIONS, AS WELL AS ACTUAL WORK LOCATIONS, TIMING, AND PROCEDURES FOR WORK AROUND TREES OR WHERE WORK TAKES PLACE WITHIN THE FENCED TREE PROTECTION ZONE OF SELECTED TREES. ALL DEVIATIONS FROM THIS PLAN MUST BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT AND OWNER'S ARBORIST PRIOR TO IMPLEMENTATION.
4. WHERE EXCAVATION FOR NEW CONSTRUCTION IS REQUIRED WITHIN THE TREE PROTECTION ZONE, FENCED OR UNFENCED, CONSULTATION WITH THE OWNERS ARBORIST IS REQUIRED. ALL TRENCHING OR EXCAVATING WITHIN TREE PROTECTION ZONES SHALL BE DONE BY HAND. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. ANY ROOT CUTTING ALLOWED BY THE PROJECT ARBORIST 2-INCHES AND LARGER REQUIRES A PERMIT AND INSPECTION BY THE OWNER'S ARBORIST.

KEYNOTES

DEMOLITION NOTES

1. EXISTING TREE TO BE REMOVED, SEE TREE REMOVAL SCHEDULE
2. EXISTING SCULPTURE AND FOOTING TO BE REMOVED, RETURN TO OWNER, NEW INSTALLATION LOCATION TBD
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16. NOT USED
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PRESERVATION NOTES

- A. EXISTING LIGHT TO REMAIN, PROTECT IN PLACE
- B. EXISTING WALK TO REMAIN, PROTECT IN PLACE
- C. EXISTING STORMWATER SYSTEM, TO BE REVISED PER CIVIL DWGS
- D. EXISTING POWER POLE TO REMAIN, PROTECT IN PLACE
- E. EXISTING TREE TO REMAIN, PROTECT IN PLACE. SEE TREE PRESERVATION SCHEDULE .
- F. NOT USED
- G. NOT USED
- H. NOT USED

EXISTING SIGNAGE

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- D. EXISTING TRAFFIC SIGN, PROTECT IN PLACE
- E. EXISTING PARK RULES SIGN, TO BE RELOCATED, NCPRD TO DETERMINE RELOCATION

TREE PRESERVATION SCHEDILE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
P-1	SEQUOIA SEMPERVIRENS / COAST REDWOOD	75" DIAMETER	GOOD HEALTH & FAIR CONDITION	PRESERVE & PROTECT IN PLACE
P-2	TBD / MAPLE	16" DIAMETER	GOOD HEALTH & FAIR CONDITION	PRESERVE & PROTECT IN PLACE

TREE REMOVAL SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
R-1	SEQUOIA SEMPERVIRENS / COAST REDWOOD	10" DIAMETER	GOOD HEALTH & GOOD CONDITION	REMOVE & REPLANT

1. THE INFORMATION ABOVE IS BASED ON AN ARBORIST REPORT COMPLETED BY STEVE GOETZ ON 05/21/2022. REMOVAL OF THE EXISTING TREE SHALL COMPLY WITH CITY OF MILWAUKIE URBAN FOREST STANDARDS. A TREE REMOVAL PERMIT SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
2. SEE SHEET L1.05 FOR TREE PROTECTION DETAIL.

NOT FOR CONSTRUCTION

SCALE 1"=10'

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503.SAK.4645
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
OREGON
EXPIRES: 6/30

MILWAUKIE BAY PARK

100% Design Development

project address

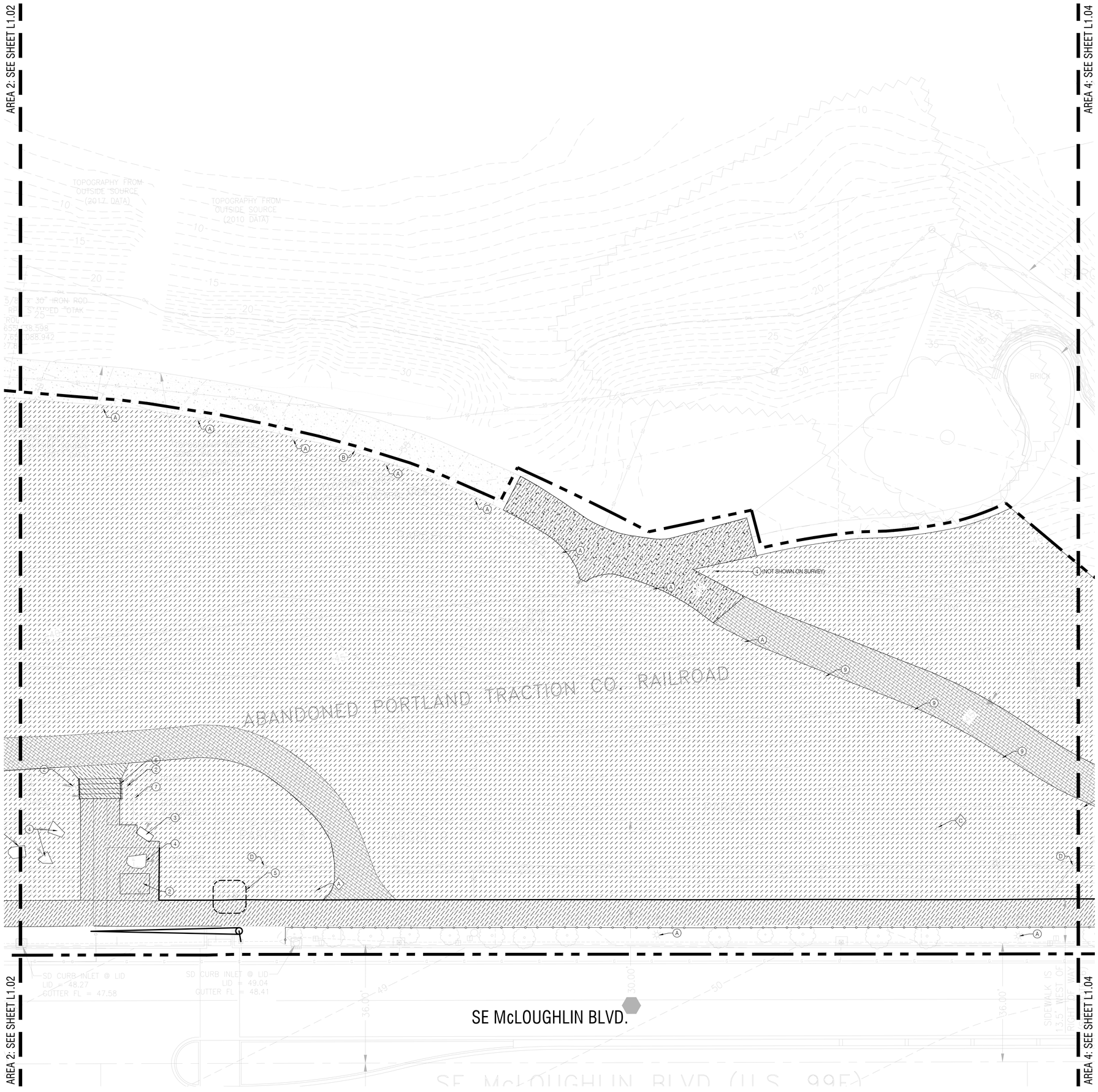
DRAWN BY: JB/CO
SCALE: AS NOTED
DATE: 06/03/2022

REVISIONS

DATE	DESCRIPTION	BY

DEMOLITION PLAN
AREA 2

L1.02



LEGEND

- PROPERTY LINE OR R.O.W.
- TREE PROTECTION FENCING (ASSUME AT ALL EXISTING TREES TO REMAIN)
- SAWCUT LINE
- NOT USED
- EXISTING CURB, THICKENED EDGE OR WALL TO BE REMOVED
- EXISTING TREE TO REMAIN, PROTECT IN PLACE
- EXISTING TREE TO BE REMOVED
- CLEAR AND GRUB
- EXISTING AC TO BE REMOVED, FULL DEPTH, INCLUDE ALL BASE ROCK
- EXISTING CONCRETE PAVING TO REMAIN, PROTECT IN PLACE
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- UNUSED

DEMOLITION NOTES

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KEYNOTES

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TREE PRESERVATION SCHEDILE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
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TREE REMOVAL SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
R-1	SEQUOIA SEMPERVIRENS / COAST REDWOOD	10" DIAMETER	GOOD HEALTH & GOOD CONDITION	REMOVE & REPLANT

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2. SEE SHEET L1.05 FOR TREE PROTECTION DETAIL.

NOT FOR CONSTRUCTION

0 5 10 20 30 50FT
SCALE 1"=10'

2.ink Studio | Landscape Architecture
18016 Sixth Avenue Suite 200
Portland, OR 97203
503.SAK.4645
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DRAWN BY: JB/CO
SCALE: AS NOTED
DATE: 06/03/2022

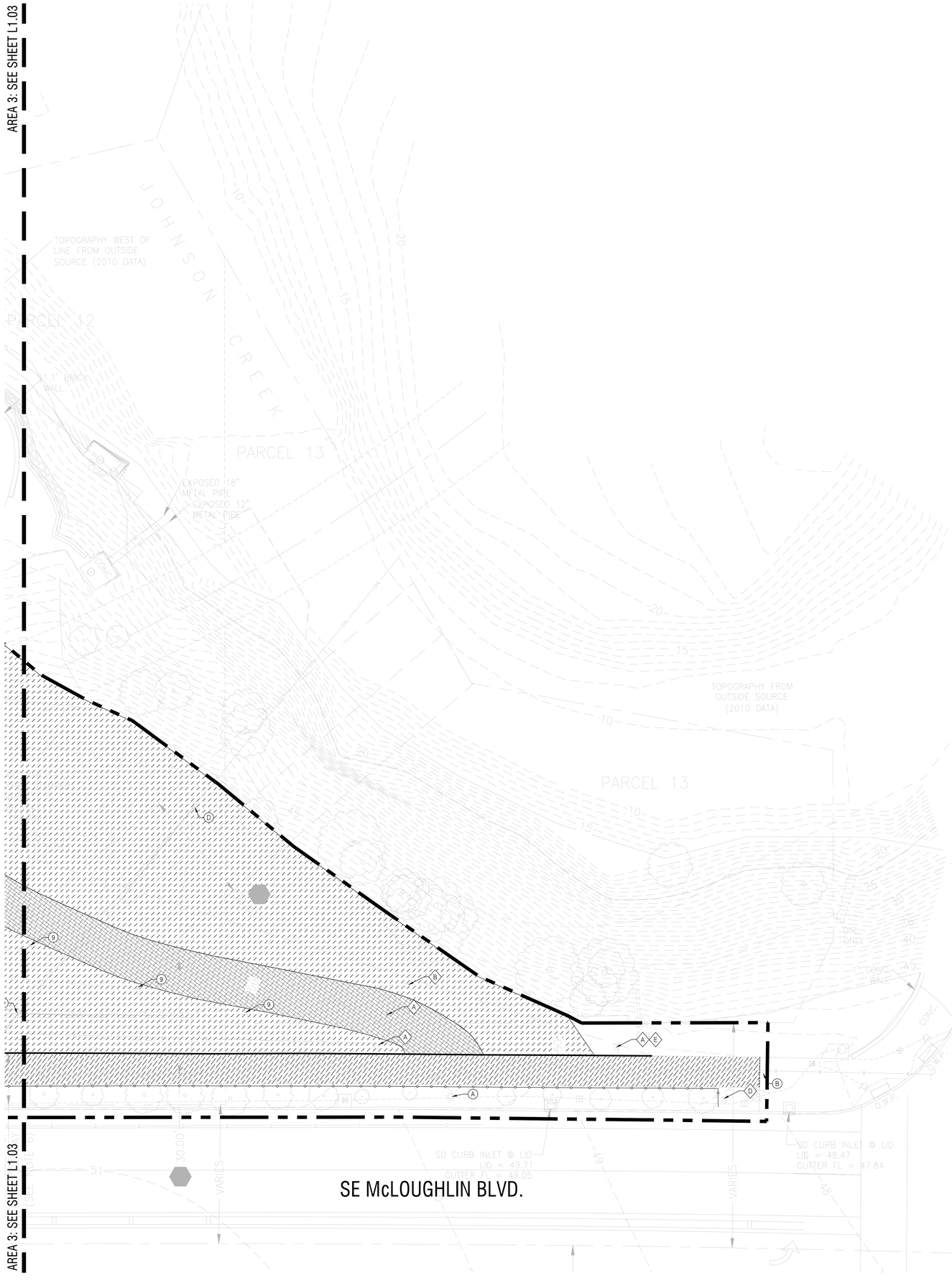
REVISIONS

DATE	DESCRIPTION	BY

DEMOLITION PLAN
AREA 3

L1.03

ONE INCH
IF DRAWING SET SCALE: IF THIS BAR DOES NOT MEASURE 1 INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



NOT FOR CONSTRUCTION

ONE INCH
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SIZE: 24"x36"

LEGEND

- PROPERTY LINE OR R.O.W.
- TREE PROTECTION FENCING (ASSUME AT ALL EXISTING TREES TO REMAIN)
- SAWCUT LINE
- NOT USED
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KEYNOTES

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PRESERVATION NOTES

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TREE PRESERVATION SCHEDILE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
P-1	SEQUOIA SEMPERVIRENS / COAST REDWOOD	75" DIAMETER	GOOD HEALTH & FAIR CONDITION	PRESERVE & PROTECT IN PLACE
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TREE REMOVAL SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	DBH	CONDITION	ACTION
R-1	SEQUOIA SEMPERVIRENS / COAST REDWOOD	10" DIAMETER	GOOD HEALTH & GOOD CONDITION	REMOVE & REPLANT

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2. SEE SHEET L1.05 FOR TREE PROTECTION DETAIL.

SCALE 1"=10'
0 5 10 20 30 50FT

2.ink Studio | Landscape Architecture
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503.SAK.4645
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
648
JONATHAN BEAVER
EXPIRES: 6/30/2023
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

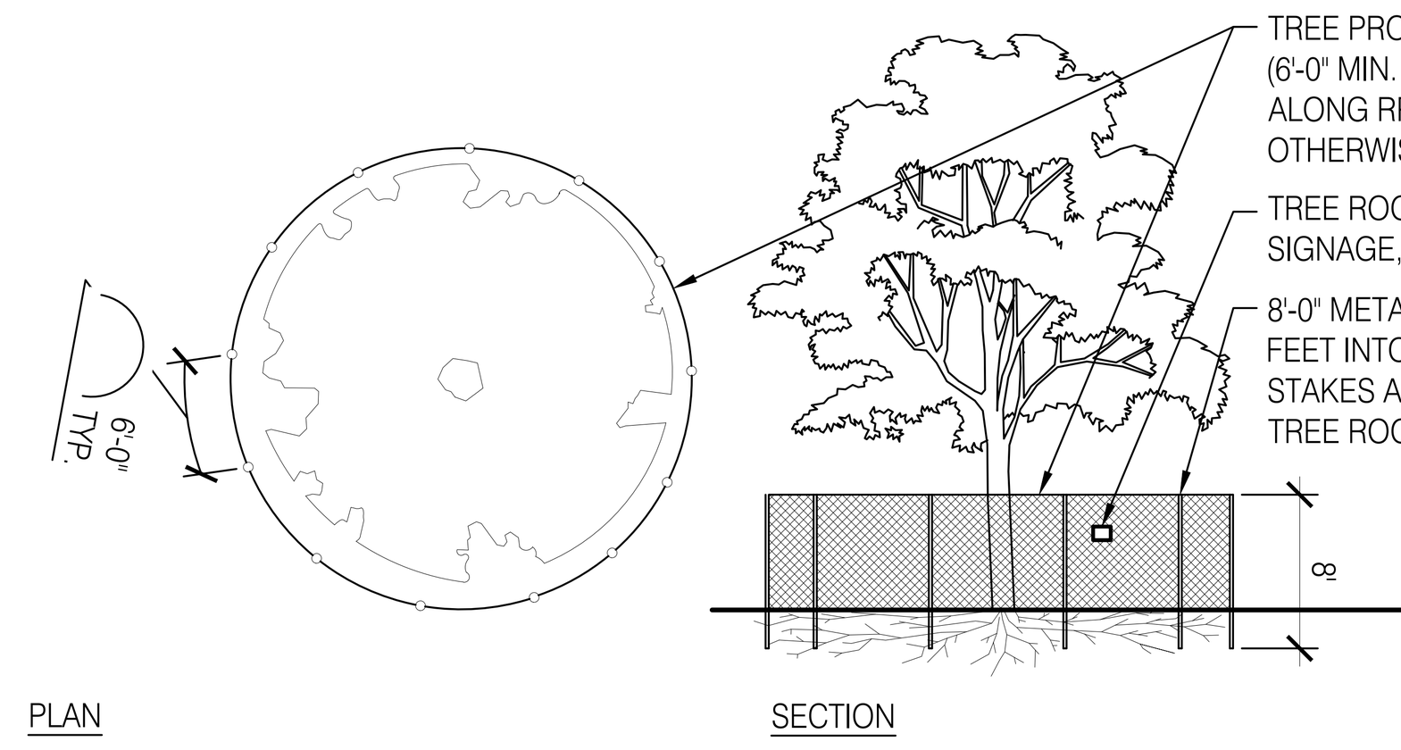
DRAWN BY: JB/CO
SCALE: AS NOTED
DATE: 06/03/2022

REVISIONS

DATE	DESCRIPTION	BY

DEMOLITION PLAN
AREA 4

L1.04



1 TREE PROTECTION FENCING DETAIL

2.ink Studio | Landscape Architecture
160 NE Sixth Avenue, Suite 200
Portland, OR 97232
503.546.4645
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
600
JONATHAN BEAVER
05/12/06
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB/CO

REVISIONS		
DATE	DESCRIPTION	BY

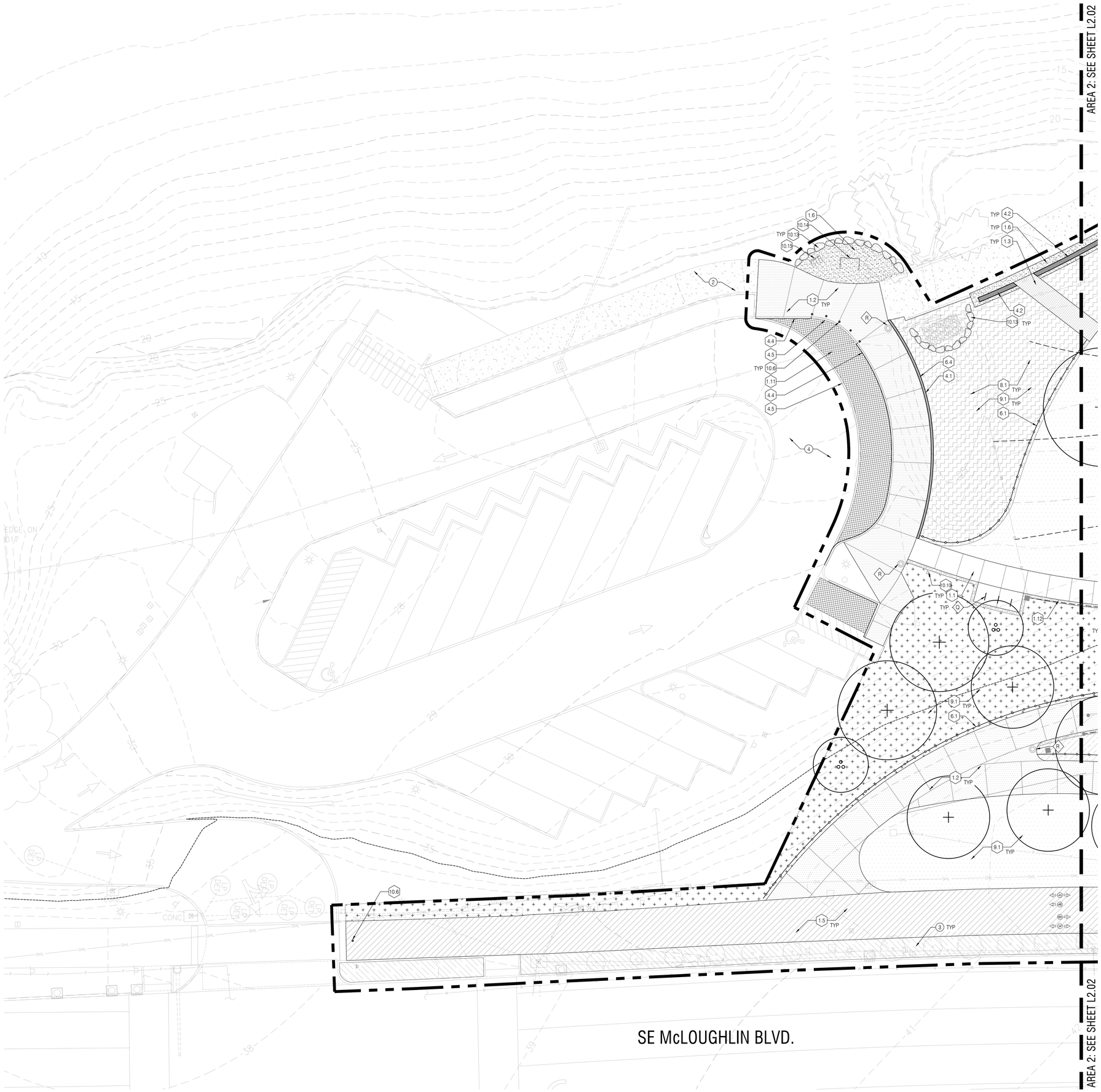
TREE PRESERVATION DETAIL AND NOTES

L1.05

NOT FOR CONSTRUCTION

0 5 10 20 30 50FT
SCALE 1"=10'

ONE INCH | DRAWING SET SCALE: IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



LEGEND

- WORK LIMIT LINE
- MATCHLINE
- PROPOSED SITE TREE
- PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2"-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

1. ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

KEYNOTES

1. JUNCTION LOCATION TBD.
2. EXISTING CONCRETE PAVING TO REMAIN.
3. EXISTING PLANTING AREA TO REMAIN.
4. EXISTING ASPHALTIC CONCRETE PAVING TO REMAIN.

SCALE 1"=10'

NOT FOR CONSTRUCTION

ONE INCH DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

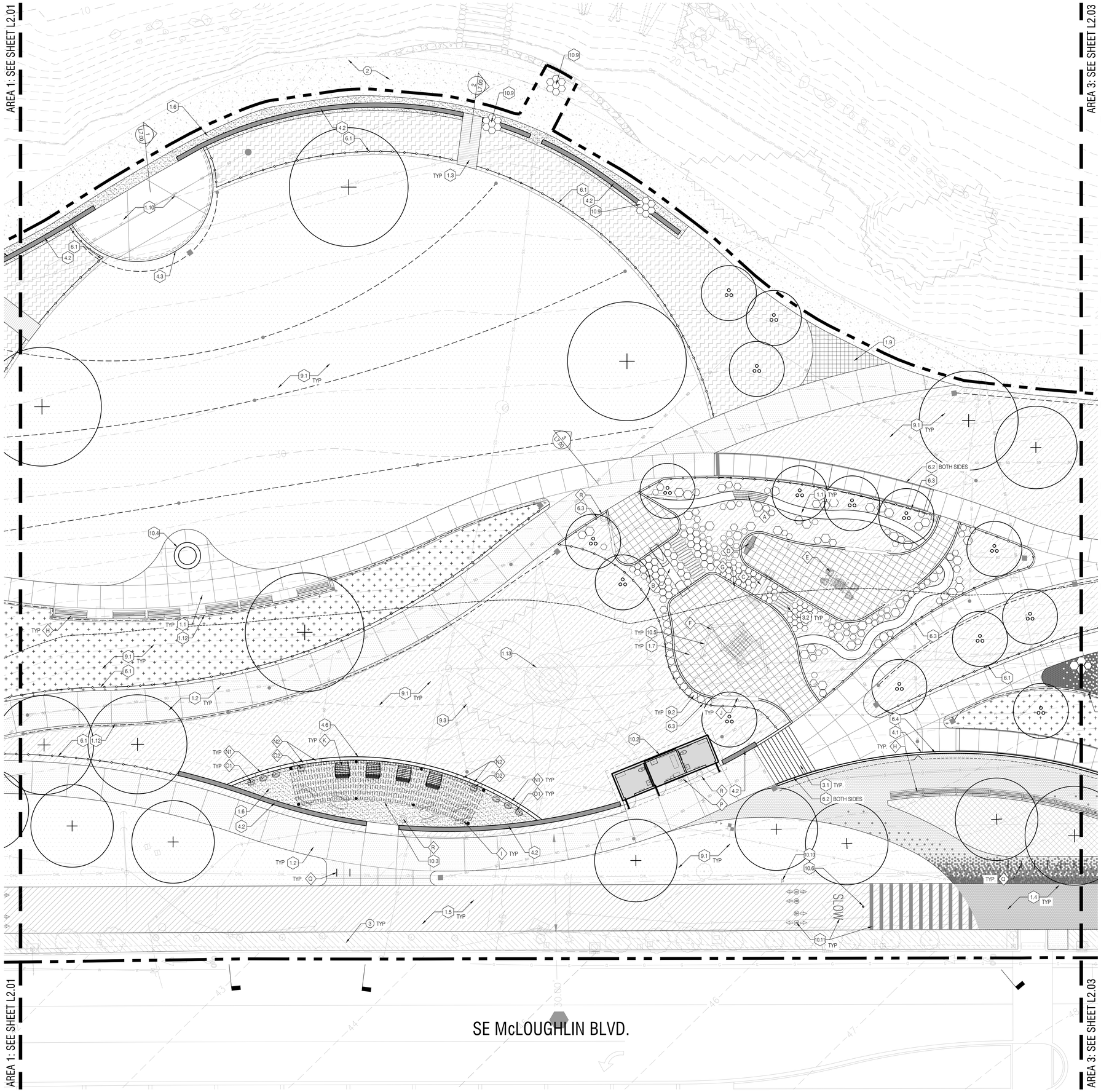
DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW

REVISIONS

DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 1

L2.01



LEGEND

- WORK LIMIT LINE
- MATCHLINE
- PROPOSED SITE TREE
- PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2'-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

1. ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

KEYNOTES

1. JUNCTION LOCATION TBD.
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NOT FOR CONSTRUCTION

SCALE 1"=10'

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Portland, OR 97232
503.546.4645
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REGISTERED LANDSCAPE ARCHITECT
JONATHON BAKER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 | SCALE: AS NOTED | DRAWN BY: JW

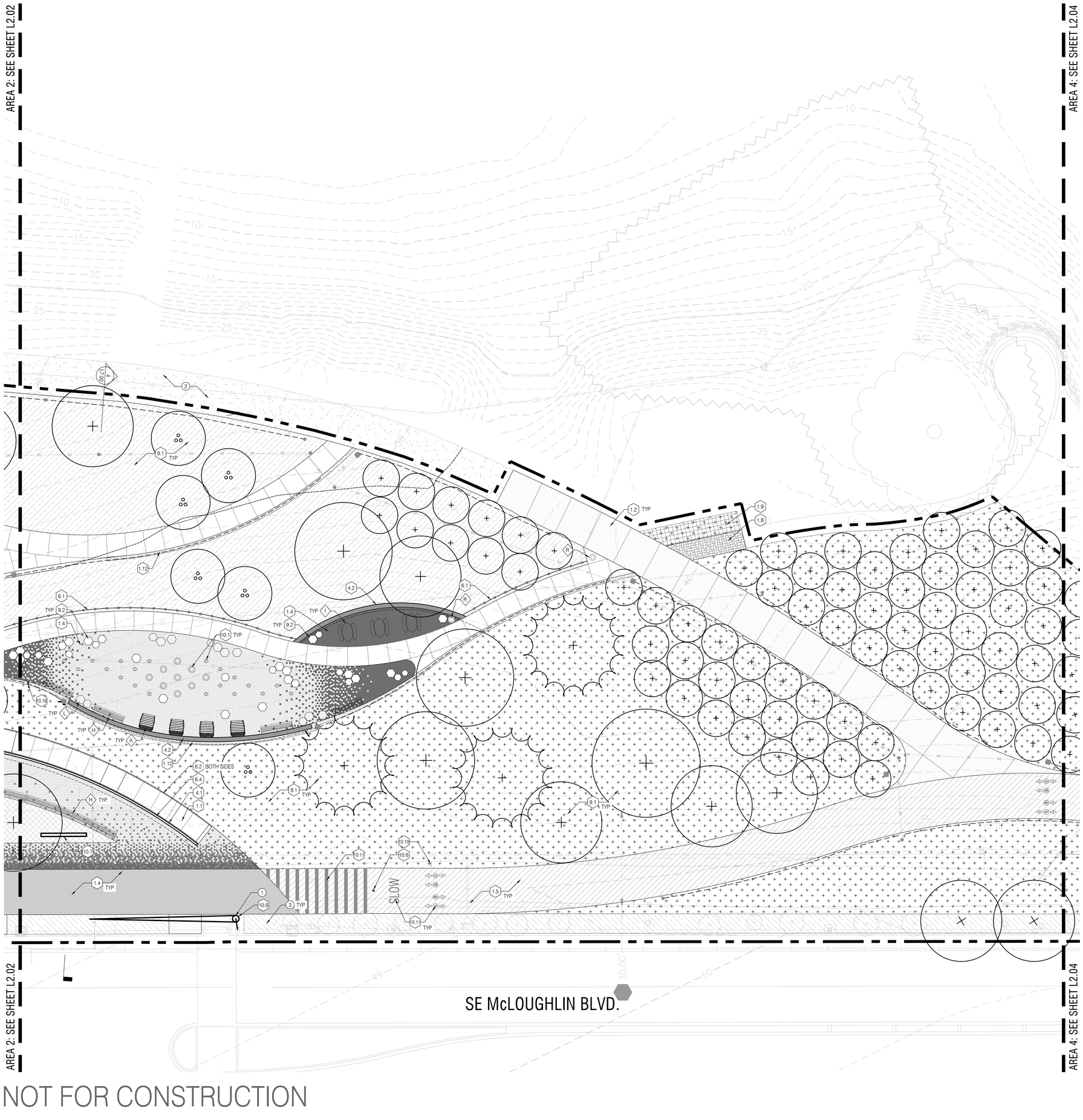
REVISIONS

DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 2

L2.02

ONE INCH | DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



LEGEND

- WORK LIMIT LINE
- MATCHLINE
- PROPOSED SITE TREE
- PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2"-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

1. ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

KEYNOTES

1. JUNCTION LOCATION TBD.
2. EXISTING CONCRETE PAVING TO REMAIN.
3. EXISTING PLANTING AREA TO REMAIN.
4. EXISTING ASPHALTIC CONCRETE PAVING TO REMAIN.

NOT FOR CONSTRUCTION

SCALE 1"= 10'

0 5 10 20 30 50FT

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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address:

DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW

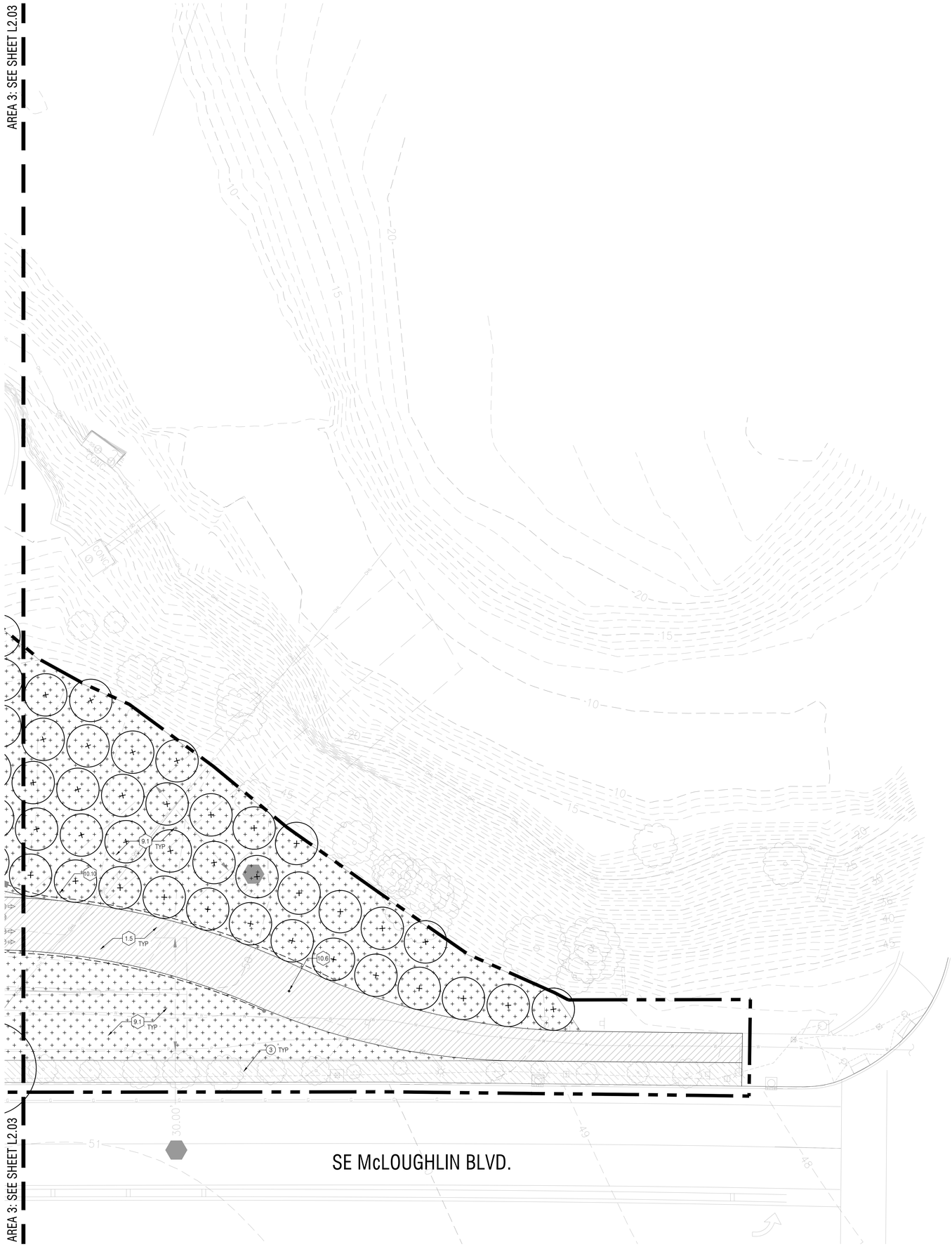
REVISIONS

DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 3

L2.03

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



NOT FOR CONSTRUCTION

LEGEND

WORK LIMIT LINE

MATCHLINE

PROPOSED SITE TREE

PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2"-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

1. ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

KEYNOTES

1. JUNCTION LOCATION TBD.
2. EXISTING CONCRETE PAVING TO REMAIN.
3. EXISTING PLANTING AREA TO REMAIN.
4. EXISTING ASPHALTIC CONCRETE PAVING TO REMAIN.

SCALE 1"=10'

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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW

REVISIONS

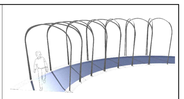
DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 4

L2.04

DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
ONE INCH

PLAY EQUIPMENT SCHEDULE

#	DESCRIPTION	MANUFACTURER	(QUANT.)/MODEL	FALL HEIGHT	DETAIL DRAWING	INSTALLATION / COMMENTS	IMAGE
A	WILLOW TUNNEL AGE: 2-9	CUSTOM	(2) CUSTOM TUNNELS	N/A	3/L7.70	TBD	
B	SLIDE AGE: 5-12	NATURAL STRUCTURES, OR APPROVED EQUAL	(1) STAINLESS STEEL TUNNEL EMBANKMENT SLIDE 8' DROP IN ELEVATION PRODUCT #: SS-P109T	N/A	N/A	EMBED FOOTING PER MANUFACTURER	
C	SLIDE AGE: 5-12	NATURAL STRUCTURES, OR APPROVED EQUAL	(1) STAINLESS STEEL EMBANKMENT WIDE SLIDE WITH CENTER RAIL 4' DROP IN ELEVATION PRODUCT #: 1643-52-EMB	N/A	N/A	EMBED FOOTING PER MANUFACTURER	
D	SOUND INSTRUMENT AGE: ALL	FREENOTES HARMONY PARK OR APPROVED EQUAL	(1) PAGASUS METALLPHONE POSTS INSTALLED AT 22"-32" HEIGHT PRODUCT #: PEG-SM-REC	N/A	N/A	EMBED FOOTING PER MANUFACTURER	
E	MISC AGE: 2-12	LANDSCAPE FORMS OR APPROVED EQUAL	(1) WE-SAW PRODUCT #: 186490	4'-6"	N/A	EMBED FOOTING PER MANUFACTURER	
F	CLIMBER AGE: 5-12	PLAYWORLD OR APPROVED EQUAL	(1) TIMBER STACKS 'SALEM' NATURAL LOG CLIMBING STRUCTURE. PRODUCT NUMBER: PRODUCT #: ZZXX1324	8'-1"	N/A	EMBED FOOTING PER MANUFACTURER	
G	AUDITORY AGE: 2-5	LANDSCAPE STRUCTURES OR APPROVED EQUAL	(4) PLAYSHAPER TALK TUBE PRODUCT#: 115198	N/A	N/A	EMBED FOOTING PER MANUFACTURER	

SITE FURNISHINGS SCHEDULE

#	DESCRIPTION	MANUFACTURER	(QUANT.)/MODEL	DETAIL DRAWING	INSTALLATION / COMMENTS	IMAGE
H	PARK BENCH	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 19 EA MODEL: NEOCOMBO 118" BACKED BENCH WITH CENTER ARM MTRL/FINISH: POWDERCOATED ALUMINUM COLOR: TBD	N/A	SURFACE MOUNT	
I	PICNIC TABLE	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 7 EA MODEL: CHARLIE TABLE WITH UMBRELLA HOLE WHERE APPLICABLE, 67" TABLE MTRL/FINISH: POWDERCOATED STEEL COLOR: TBD	N/A	SURFACE MOUNT	
J	LOG PLAYGROUND BENCH	CUSTOM	QUANTITY: 5 EA MODEL: N/A FINISH: APPLY CLEAR PROTECTIVE COATING COLOR: N/A	N/A	TBD	
K	LOUNGE SEAT	VESTRE	QUANTITY: 8 EA MODEL: 1566 BLOC BENCH WITH CUSTOM METAL SLATS MTRL/FINISH: POWDERCOATED STEEL COLOR: TBD	N/A	SURFACE MOUNT	*THIS ITEM PENDING FURTHER REVIEW 
L	COLUMNAR BASALT SEAT	CUSTOM	QUANTITY: 12 EA MODEL: N/A MTRL/FINISH: CUT COLUMNAR BASALT WITH ANTI-SLIP FINSIH COLOR: N/A	N/A	TBD	
N	(N1)BAR RAIL HIGH (N2)BAR RAIL LOW	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 2 STANDARD 8' LONG RAILS WITH 10 EXTENSION UNITS MODEL: RAILING SYSTEM WITH 12" WIDE BAR TOP, OPEN WITH CENTER EXPANSION UNITS, STANDARD 42" HIGH & ADA ACCESSIBLE HEIGHT. MTRL/FINISH: ALUMINUM TOP, STEEL SUPPORTS COLOR: TBD	N/A	EMBEDDED	
M	NOT USED	-	-	-	-	-
O	(O1)BAR SEAT HIGH (O2)BAR SEAT LOW	LANDSCAPE FORMS OR APPROVED EQUAL	(O1) QUANTITY: 6 EA (O1) MODEL: BERNIE STOOL, 41" BAR HEIGHT, RIGHT HANDED BACK (O2) QUANTITY: 2 EA (O2) MODEL: OLLIE CHAIR, 30" HEIGHT CHAIR, RIGHT HANDED BACK MTRL/FINISH: POWDERCOATED ALUMINUM & STEEL COLOR: TBD	N/A	EMBEDDED	
P	DRINKING FOUNTAIN AND BOTTLE FILLER	MOST DEPENDABLE FOUNTAIN OR APPROVED EQUAL	QUANTITY: 1 EA MODEL: BOTTLE FILLING STATION,10485 WMSS MTRL/FINISH: POWDERCOATED STEEL COLOR: TBD	N/A	MOUNT ON RESTROOM BUILDING	
Q	BIKE RACK	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: TBD OPTION A: FLO BIKE RACK, CAPACITY OF 3 OPTION B: CUSTOM RACK WITH TROLLY TRAIL LOGO MTRL/FINISH: POWDERCOATED STAINLESS STEEL COLOR: TBD	N/A	EMBEDDED	
R	TRASH RECEPTACLE	LANDSCAPE FORMS OR APPROVED EQUAL	QUANTITY: 9 EA MODEL: AUSTIN TRASH RECEPTACLE, 34 GALLON, SIDE OPENING WITH LOCK MTRL/FINISH: POWDERCOATED STEEL AND ALUMINUM COLOR: TBD	N/A	SURFACE MOUNTED	

NOT FOR CONSTRUCTION

ONE INCH | DRAWING SIZE: 24"x36" | IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

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REGISTERED LANDSCAPE ARCHITECT
JONATHON BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW

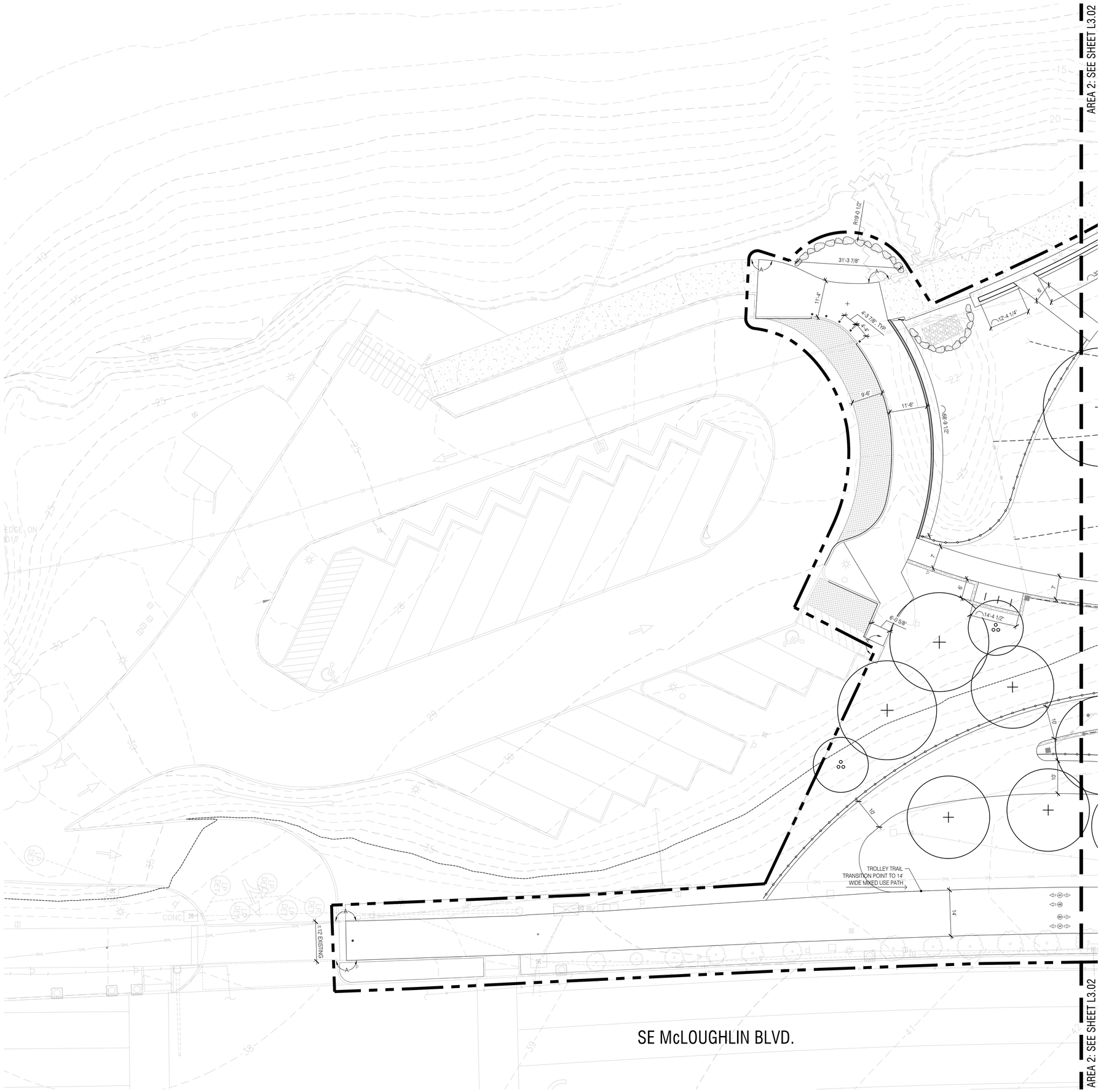
REVISIONS

DATE	DESCRIPTION	BY

PLAYGROUND AND FURNISHINGS SCHEDULE

L2.10

SCALE 1"=10'



ABBREVIATIONS

ABBREV.	DESCRIPTION
A	ALIGN
CL	CENTERLINE
EQ	EQUAL
FOW	FACE OF WALL
POB	POINT OF BEGINNING
TYP	TYPICAL

SYMBOLS

SYMBOL	DESCRIPTION
	ALIGN
℄	CENTERLINE

GENERAL NOTES

1. XXXXX

CAD FILE NOTE

AUTOCAD BASE FILE AVAILABLE UPON CONTRACTOR REQUEST FOR CONSTRUCTION LAYOUT.

KEYNOTES

1. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
2. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
3. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
4. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.

NOT FOR CONSTRUCTION

SCALE 1"=10'

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REGISTERED LANDSCAPE ARCHITECT
OREGON

MILWAUKIE BAY PARK

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DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: CO

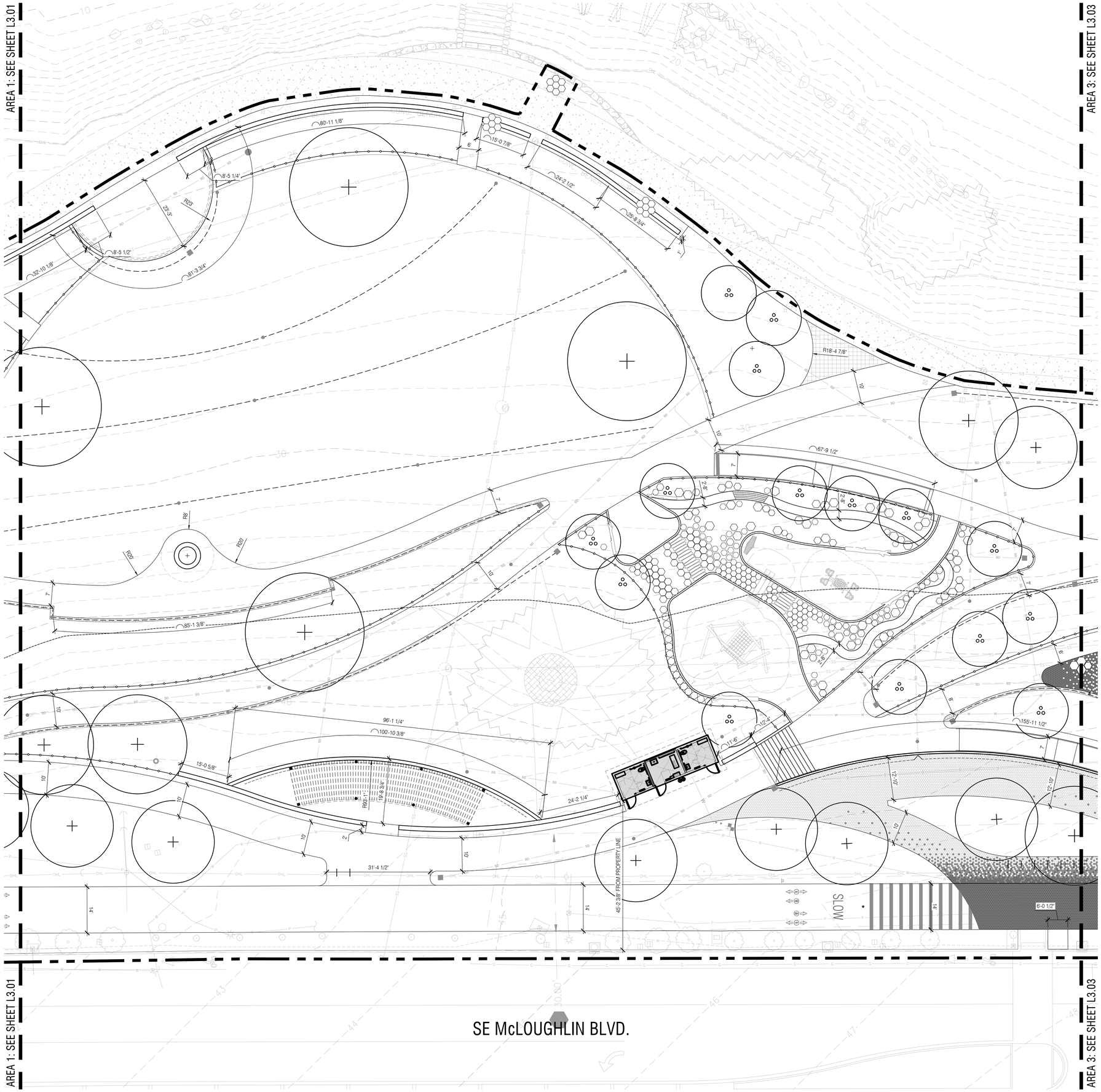
REVISIONS

DATE	DESCRIPTION	BY

LAYOUT PLAN
AREA 1

L3.01

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



ABBREVIATIONS

ABBREV.	DESCRIPTION
A	ALIGN
CL	CENTERLINE
EQ	EQUAL
FOW	FACE OF WALL
POB	POINT OF BEGINNING
TYP	TYPICAL

SYMBOLS

SYMBOL	DESCRIPTION
	ALIGN
℄	CENTERLINE

GENERAL NOTES

1. XXXXX

CAD FILE NOTE

AUTOCAD BASE FILE AVAILABLE UPON CONTRACTOR REQUEST FOR CONSTRUCTION LAYOUT.

KEYNOTES

1. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
2. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
3. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
4. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.

NOT FOR CONSTRUCTION

SCALE 1"=10'

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REGISTERED
EXPIRES: 6/30
JONATHON REAVER
2018
OREGON
LANDSCAPE ARCHITECT

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 | SCALE: AS NOTED | DRAWN BY: CO

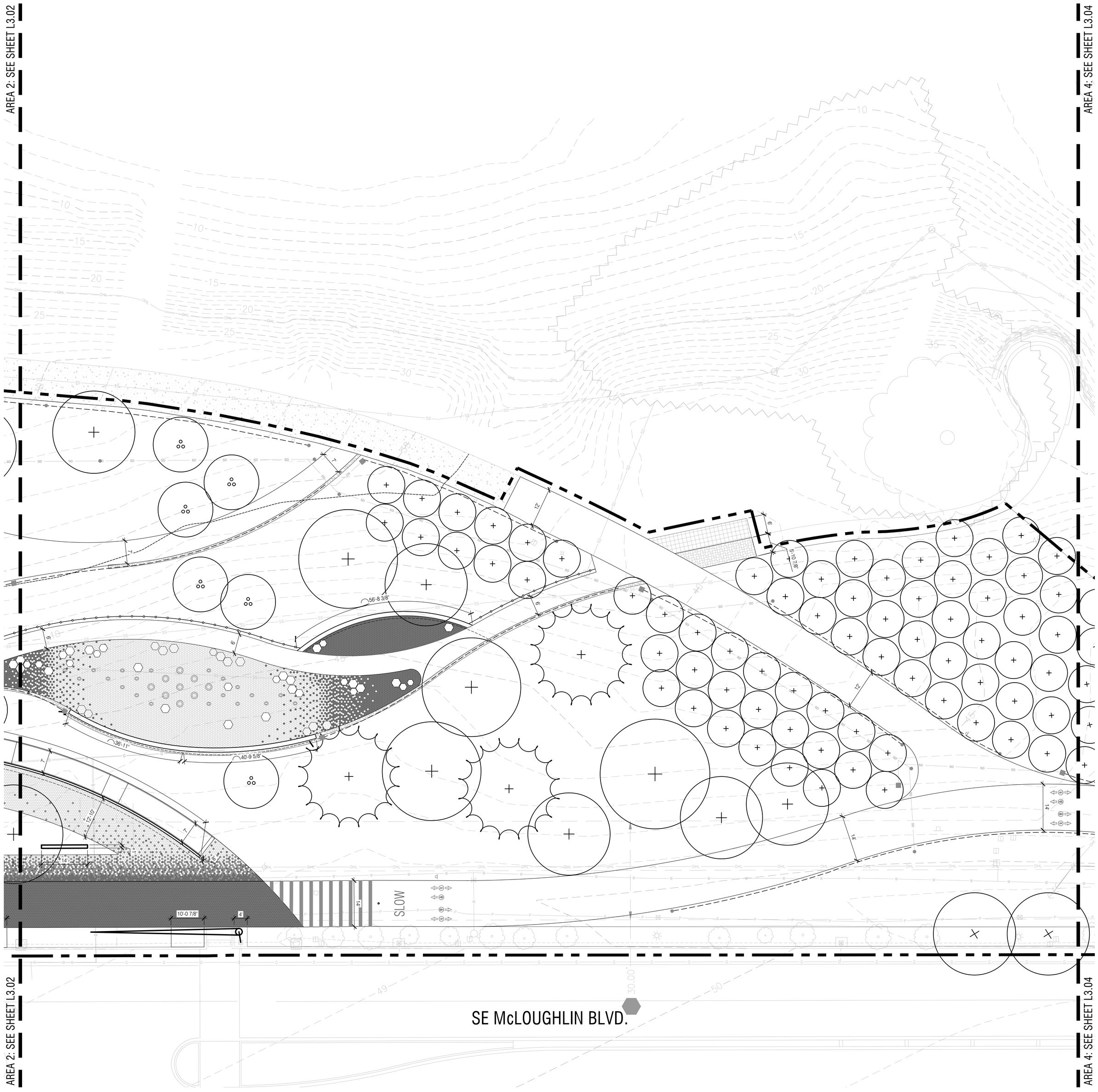
REVISIONS

DATE	DESCRIPTION	BY

LAYOUT PLAN
AREA 2

L3.02

ONE INCH
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SET SCALE:



ABBREVIATIONS

ABBREV.	DESCRIPTION
A	ALIGN
CL	CENTERLINE
EQ	EQUAL
FOW	FACE OF WALL
POB	POINT OF BEGINNING
TYP	TYPICAL

SYMBOLS

SYMBOL	DESCRIPTION
	ALIGN
℄	CENTERLINE

GENERAL NOTES

1. XXXXX

CAD FILE NOTE

AUTOCAD BASE FILE AVAILABLE UPON CONTRACTOR REQUEST FOR CONSTRUCTION LAYOUT.

KEYNOTES

1. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
2. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
3. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
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NOT FOR CONSTRUCTION

SCALE 1"=10'

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JONATHON REMER
OREGON
LANDSCAPE ARCHITECT

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: CO

REVISIONS

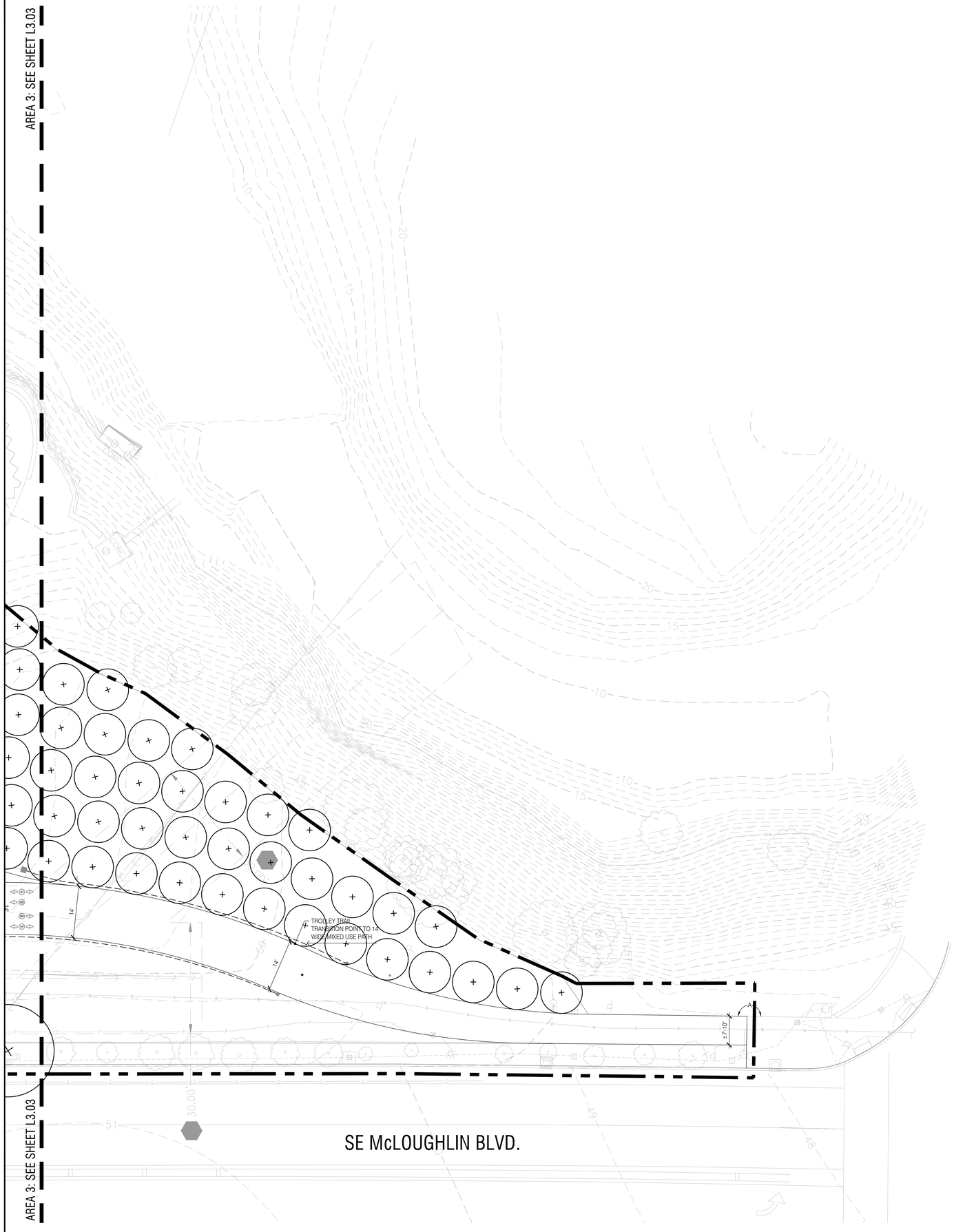
DATE	DESCRIPTION	BY

LAYOUT PLAN
AREA 3

L3.03

ONE INCH
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SET SCALE:

AREA 3: SEE SHEET L3.03



AREA 3: SEE SHEET L3.03

NOT FOR CONSTRUCTION

ABBREVIATIONS

ABBREV.	DESCRIPTION
A	ALIGN
CL	CENTERLINE
EQ	EQUAL
FOW	FACE OF WALL
POB	POINT OF BEGINNING
TYP	TYPICAL

SYMBOLS

SYMBOL	DESCRIPTION
	ALIGN
℄	CENTERLINE

GENERAL NOTES

1. XXXXX

CAD FILE NOTE

AUTOCAD BASE FILE AVAILABLE UPON CONTRACTOR REQUEST FOR CONSTRUCTION LAYOUT.

KEYNOTES

1. LOREM IPSUM DOLOR SIT AMET, CONSECTETUR ADIPISCING ELIT, NULLA INTERDUM, ENIM SIT AMET COMMODO.
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SCALE 1"=10'

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OREGON
JONATHAN BEAVER
5048

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: CO

REVISIONS

DATE	DESCRIPTION	BY

LAYOUT PLAN
AREA 4

L3.04

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

GRADING LEGEND

SYM.	DESCRIPTION
46	EXISTING INTERMEDIATE CONTOUR (1' INTERVAL)
45	EXISTING INDEX CONTOUR (5' INTERVAL)
46	PROPOSED INTERMEDIATE CONTOUR (1' INTERVAL)
45	PROPOSED INDEX CONTOUR (5' INTERVAL)
(45.48)	REFERENCED EXISTING SPOT ELEVATION, SEE SURVEY
<45.48>	REFERENCED PROPOSED SPOT ELEVATION, SEE CIVIL
45.48	PROPOSED SPOT ELEVATION
1.4%	GRADIENT AND DIRECTION OF SLOPE (ARROW POINTS DOWN)
	DOT INDICATES TOP OF RAMP / STAIR NOSING, ARROWHEAD INDICATES BOTTOM OF RAMP / STAIR NOSING
AD	TOP OF AREA DRAIN (RIM)
BC	BOTTOM OF CURB
BS	BOTTOM OF STEP
BW	BOTTOM OF WALL AT ADJACENT FINISH GRADE / FINISH SURFACE
CB	TOP OF CATCH BASIN (RIM)
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FS	FINISH SURFACE
IE	INVERT ELEVATION
TC	TOP OF CURB
TE	TOP OF EDGER
TS	TOP OF STEP
TW	TOP OF WALL
TYP	TYPICAL

GENERAL NOTES

1. VERIFY GRADIENTS AND SLOPES OF SLAB AND FINISH FLOOR ELEVATIONS PRIOR TO BEGINNING WORK.
2. NO PAVING OR HARDSCAPE CROSS-SLOPES SHALL EXCEED 2.0%.
3. IF CONFLICTS EXISTS BETWEEN CONTOUR LINES AND SPOT ELEVATION, SPOT ELEVATIONS TAKE PRECEDENCE.
4. STAIR RISER MINIMUM = 4" / STAIR RISER MAXIMUM = 7".
5. FOR WALL HEIGHTS EXCEEDING 4 FEET, REFER TO STRUCTURAL FOR WALL REINFORCING, FOOTING DIMENSIONS AND REINFORCING STEEL CONCRETE COVER REQUIREMENTS.

AREA 2: SEE SHEET L4.02

SE McLOUGHLIN BLVD.

ODOT JURISDICTION LINE

ODOT R/W

NOT FOR CONSTRUCTION

SCALE 1"=10'

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project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB

REVISIONS

DATE	DESCRIPTION	BY

GRADING PLAN
AREA 1

L4.01

ONE INCH
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SET SCALE:

AREA 1: SEE SHEET L4.01

AREA 3: SEE SHEET L4.03

AREA 1: SEE SHEET L4.01

AREA 3: SEE SHEET L4.03

SE McLOUGHLIN BLVD.

GRADING LEGEND

SYM.	DESCRIPTION
46	EXISTING INTERMEDIATE CONTOUR (1' INTERVAL)
45	EXISTING INDEX CONTOUR (5' INTERVAL)
46	PROPOSED INTERMEDIATE CONTOUR (1' INTERVAL)
45	PROPOSED INDEX CONTOUR (5' INTERVAL)
(45.48)	REFERENCED EXISTING SPOT ELEVATION, SEE SURVEY
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FS	FINISH SURFACE
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TYP	TYPICAL

GENERAL NOTES

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NOT FOR CONSTRUCTION

SCALE 1"=10'

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REGISTERED LANDSCAPE ARCHITECT
OREGON
EXPIRATION DATE: 6/30/2023

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB

REVISIONS

DATE	DESCRIPTION	BY

GRADING PLAN
AREA 2

L4.02

ONE INCH

IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SET SCALE:

GRADING LEGEND

SYM.	DESCRIPTION
46	EXISTING INTERMEDIATE CONTOUR (1' INTERVAL)
45	EXISTING INDEX CONTOUR (5' INTERVAL)
46	PROPOSED INTERMEDIATE CONTOUR (1' INTERVAL)
45	PROPOSED INDEX CONTOUR (5' INTERVAL)
(45.48)	REFERENCED EXISTING SPOT ELEVATION, SEE SURVEY
<45.48>	REFERENCED PROPOSED SPOT ELEVATION, SEE CIVIL
45.48	PROPOSED SPOT ELEVATION
1.4%	GRADIENT AND DIRECTION OF SLOPE (ARROW POINTS DOWN)
←—○	DOT INDICATES TOP OF RAMP / STAIR NOSING, ARROWHEAD INDICATES BOTTOM OF RAMP / STAIR NOSING
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TYP	TYPICAL

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05/12/06
OREGON

MILWAUKIE BAY PARK

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project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB

REVISIONS

DATE	DESCRIPTION	BY

GRADING PLAN
AREA 3

L4.03

SCALE 1"=10'
0 5 10 20 30 50FT

ONE INCH
DRAWING SET SCALE:
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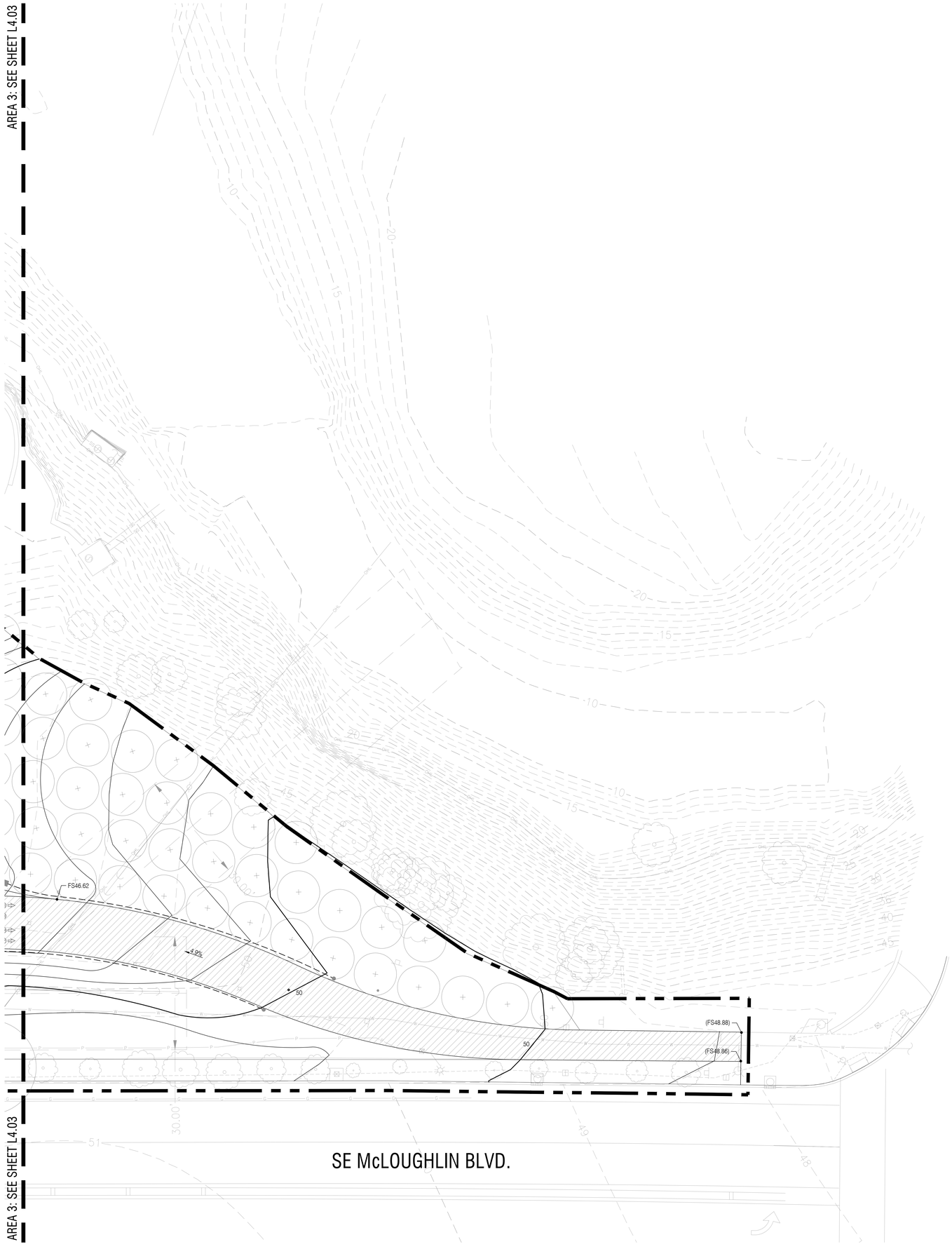
NOT FOR CONSTRUCTION



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0 5 10 20 30 50FT
SCALE 1"=10'

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JONATHAN BEAVER
2008

MILWAUKIE BAY PARK

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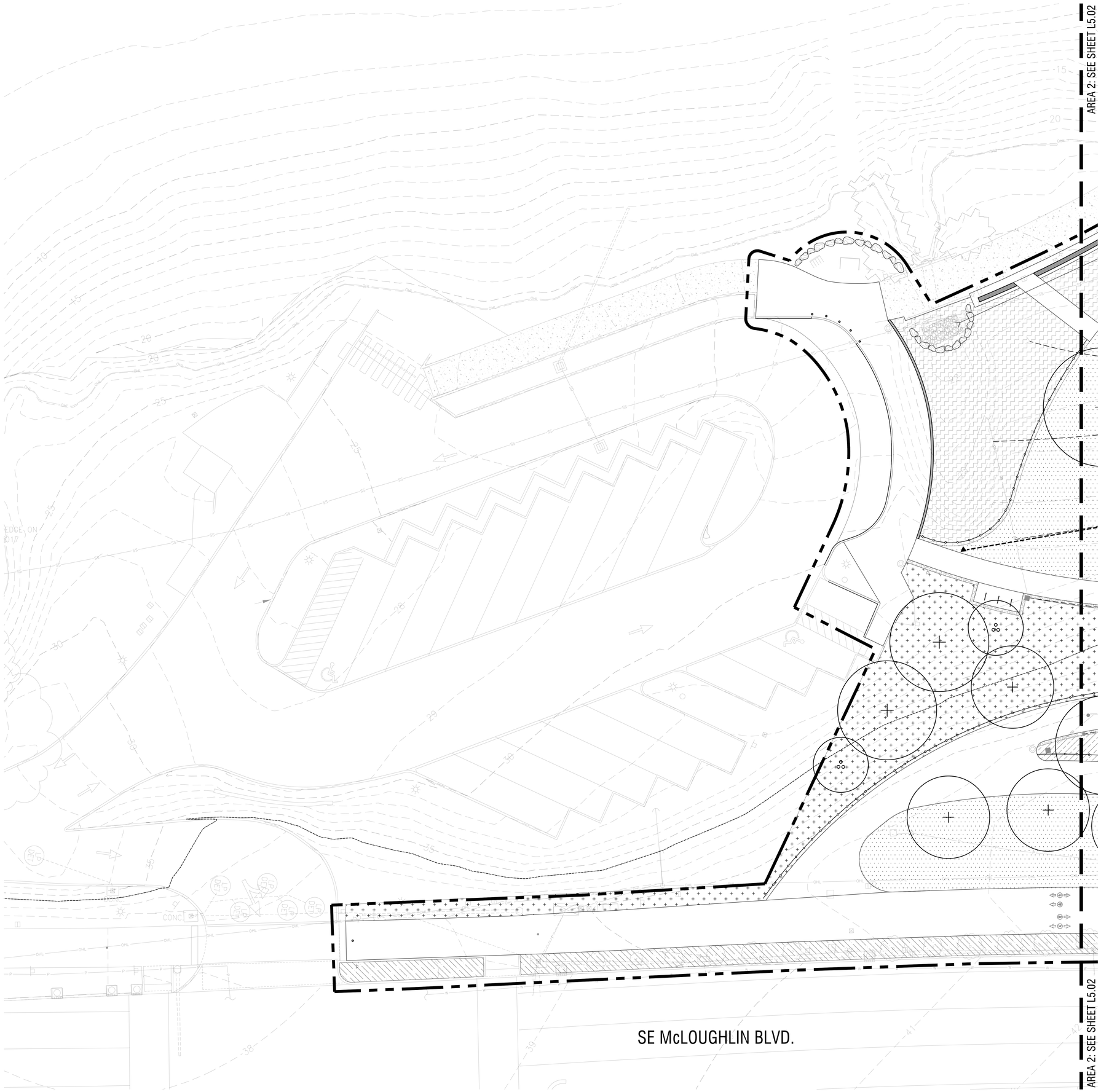
REVISIONS

DATE	DESCRIPTION	BY

GRADING PLAN
AREA 4

L4.04

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



IRRIGATION SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	SQ. FT.
	SEEDED TURF IRRIGATION ROTOR HEADS	25,618
	GRASSLAND IRRIGATION ROTOR HEADS	35,083
	ORNAMENTAL PLANTING IRRIGATION SPRAY HEADS	960
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS PROTECT / MAINTAIN EXISTING IRRIGATION IN PLACE	1,794
	UPLAND PLANTING IRRIGATION SPRAY HEADS	21,975
	RIPARIAN PLANTING IRRIGATION SPRAY HEADS	6,717

GENERAL NOTES

1. SEE PRICING NARRATIVE FOR MORE INFORMATION.

IRRIGATION ZONE KEY

ZONE KEY TAG → 22 ← GPM DEMAND
ZONE # → 3 | 1" ← VALVE SIZE

LATERAL LINE PIPE SIZING

GALLONS PER MINUTE	MINIMUM PIPE SIZE
0 - 16	1" DIAMETER
16 - 35	1-1/2" DIAMETER
35 - 55	2" DIAMETER

IRRIGATION EQUIPMENT

SYMBOL	DESCRIPTION	DETAIL
	POINT OF CONNECTION: SEE CIVIL DRAWINGS	X/LX.XX
	MAIN LINE: SCHEDULE 40 PVC, 3"	X/LX.XX
	LATERAL LINE: SCHEDULE 40 PVC, SIZE AS NOTED, 0.75" MIN.	X/LX.XX
	SLEEVING: SCHEDULE 40 PVC, 4.0" MIN.	X/LX.XX
	SWING CHECK VALVE, LINE SIZE	X/LX.XX
C-1	CONTROLLER: HUNTER I-CORE, METAL OUTDOOR CABINET	X/LX.XX
BP	BACKFLOW PREVENTER: SEE PLUMBING DRAWINGS/SEE CIVIL DRAWINGS	X/LX.XX
MV	MASTER VALVE, NORMALLY OPEN	X/LX.XX
FS	FLOW SENSOR	X/LX.XX
RS	HUNTER RAIN-CLIK	X/LX.XX
	QUICK COUPLER RAINBIRD 44RC	X/LX.XX
	REMOTE VALVE: RAINBIRD PEB SERIES	X/LX.XX
	MANUAL DRAIN VALVE: BRASS, AT LOW POINTS OF ZONE AND AT END OF EACH ZONE	X/LX.XX
	EXISTING CONTROL VALVE: LOCATION NOTED ON DRAWINGS	X/LX.XX

NOT FOR CONSTRUCTION

SCALE 1"=10'

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OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB/CO

REVISIONS

DATE	DESCRIPTION	BY

IRRIGATION PLAN
AREA 1

L5.01

ONE INCH
DRAWING SET SCALE:
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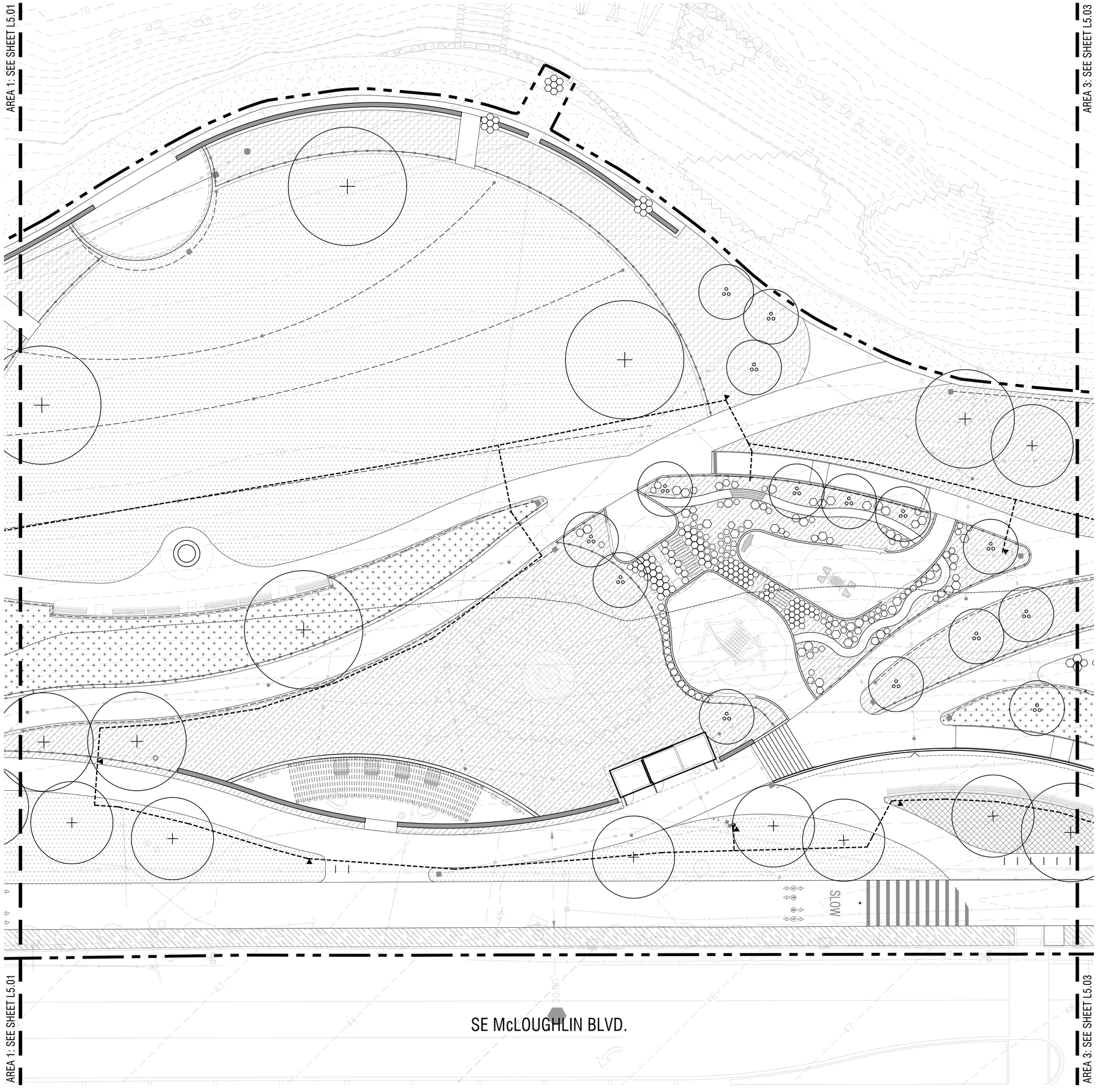

IRRIGATION SCHEDULE

SYM.	BOTANICAL NAME / COMMON NAME	SQ. FT.
	SEEDED TURF IRRIGATION ROTOR HEADS	25,618
	GRASSLAND IRRIGATION ROTOR HEADS	35,083
	ORNAMENTAL PLANTING IRRIGATION SPRAY HEADS	960
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS PROTECT / MAINTAIN EXISTING IRRIGATION IN PLACE	1,794
	UPLAND PLANTING IRRIGATION SPRAY HEADS	21,975
	RIPARIAN PLANTING IRRIGATION SPRAY HEADS	6,717

GENERAL NOTES

1. SEE PRICING NARRATIVE FOR MORE INFORMATION.

IRRIGATION ZONE KEY

ZONE KEY TAG → 22 ← GPM DEMAND
ZONE # → 3 | 1" ← VALVE SIZE

LATERAL LINE PIPE SIZING

GALLONS PER MINUTE	MINIMUM PIPE SIZE
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IRRIGATION EQUIPMENT

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	LATERAL LINE: SCHEDULE 40 PVC, SIZE AS NOTED, 0.75" MIN.	X/LX.XX
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	SWING CHECK VALVE, LINE SIZE	X/LX.XX
C-1	CONTROLLER: HUNTER I-CORE, METAL OUTDOOR CABINET	X/LX.XX
BP	BACKFLOW PREVENTER: SEE PLUMBING DRAWINGS/SEE CIVIL DRAWINGS	X/LX.XX
MV	MASTER VALVE, NORMALLY OPEN	X/LX.XX
FS	FLOW SENSOR	X/LX.XX
RS	HUNTER RAIN-CLIK	X/LX.XX
	QUICK COUPLER RAINBIRD 44RC	X/LX.XX
	REMOTE VALVE: RAINBIRD PEB SERIES	X/LX.XX
	MANUAL DRAIN VALVE: BRASS, AT LOW POINTS OF ZONE AND AT END OF EACH ZONE	X/LX.XX
	EXISTING CONTROL VALVE: LOCATION NOTED ON DRAWINGS	X/LX.XX

NOT FOR CONSTRUCTION

SCALE 1"=10'

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MILWAUKIE BAY PARK

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DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB/CO

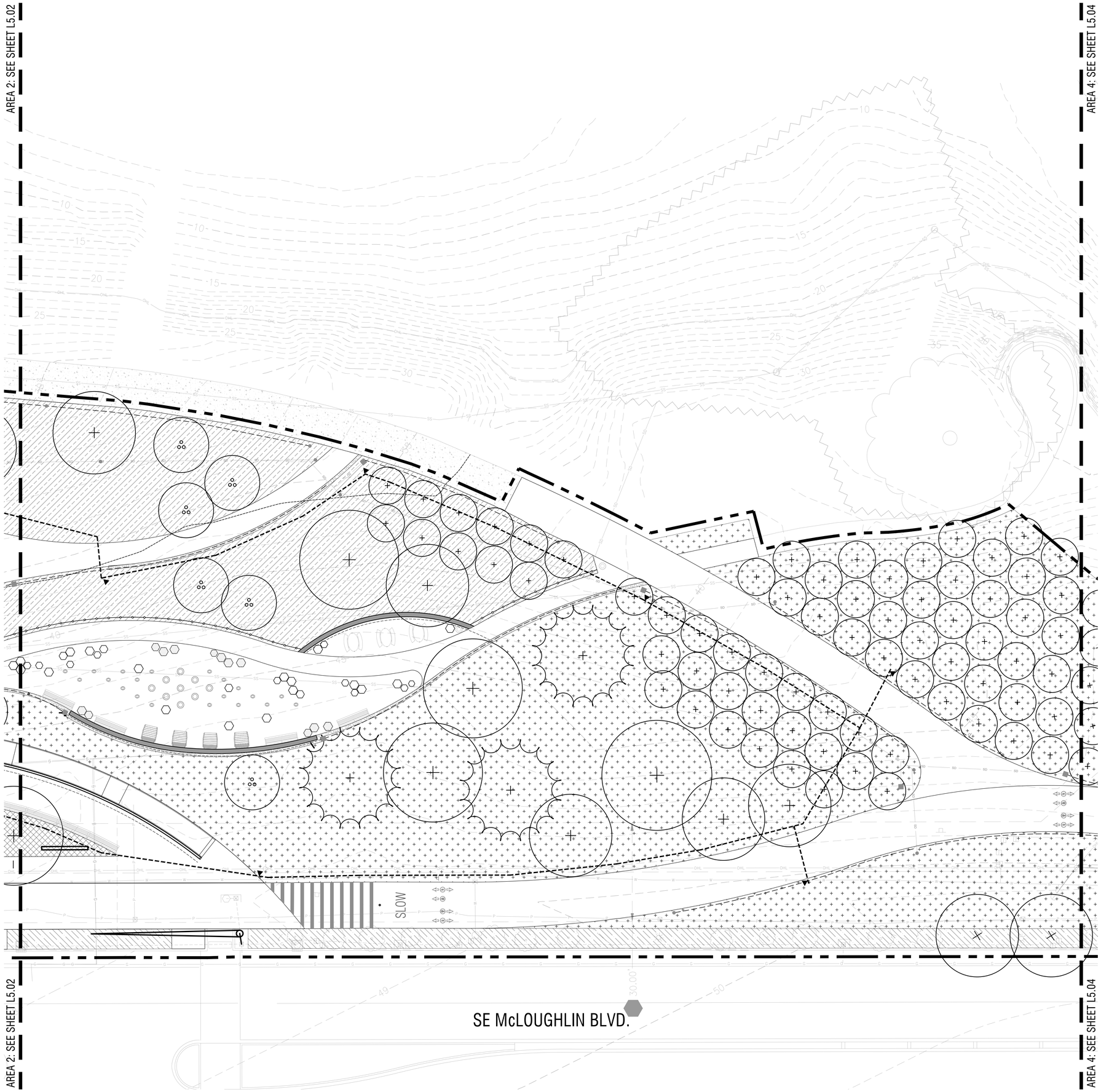
REVISIONS

DATE	DESCRIPTION	BY

IRRIGATION PLAN
AREA 2

L5.02

ONE INCH. IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS. DRAWING SET SCALE:



IRRIGATION SCHEDULE

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GENERAL NOTES

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IRRIGATION ZONE KEY

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LATERAL LINE PIPE SIZING

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	SLEEVING: SCHEDULE 40 PVC, 4.0" MIN.	X/LX.XX
	SWING CHECK VALVE, LINE SIZE	X/LX.XX
C-1	CONTROLLER: HUNTER I-CORE, METAL OUTDOOR CABINET	X/LX.XX
BP	BACKFLOW PREVENTER: SEE PLUMBING DRAWINGS/SEE CIVIL DRAWINGS	X/LX.XX
MV	MASTER VALVE, NORMALLY OPEN	X/LX.XX
FS	FLOW SENSOR	X/LX.XX
RS	HUNTER RAIN-CLIK	X/LX.XX
	QUICK COUPLER RAINBIRD 44RC	X/LX.XX
	REMOTE VALVE: RAINBIRD PEB SERIES	X/LX.XX
	MANUAL DRAIN VALVE: BRASS, AT LOW POINTS OF ZONE AND AT END OF EACH ZONE	X/LX.XX
	EXISTING CONTROL VALVE: LOCATION NOTED ON DRAWINGS	X/LX.XX

NOT FOR CONSTRUCTION

SCALE 1"=10'

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REGISTERED LANDSCAPE ARCHITECT
OREGON
JONATHAN BEAVER
5048
RENEWAL: 6/30/2023

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB/CO

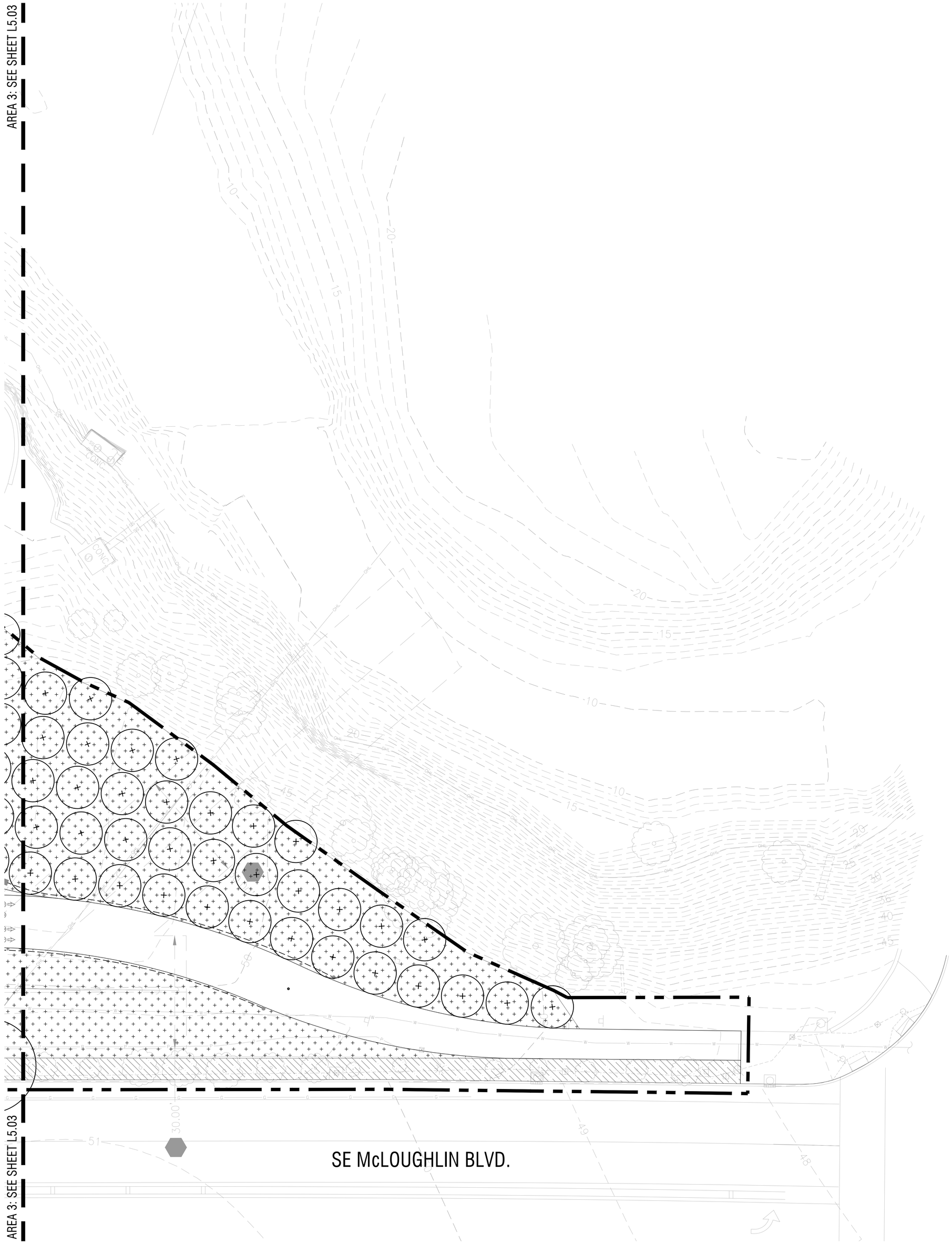
REVISIONS

DATE	DESCRIPTION	BY

IRRIGATION PLAN
AREA 3

L5.03

ONE INCH DRAWING SET SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



IRRIGATION SCHEDULE

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GENERAL NOTES

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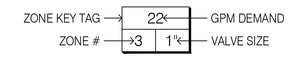
IRRIGATION ZONE KEY



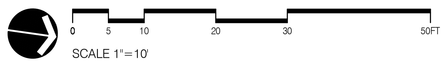
LATERAL LINE PIPE SIZING

GALLONS PER MINUTE	MINIMUM PIPE SIZE
0 - 16	1" DIAMETER
16 - 35	1-1/2" DIAMETER
35 - 55	2" DIAMETER

IRRIGATION EQUIPMENT

SYMBOL	DESCRIPTION	DETAIL
	POINT OF CONNECTION: SEE CIVIL DRAWINGS	X/L.X.XX
	MAIN LINE: SCHEDULE 40 PVC, 3"	X/L.X.XX
	LATERAL LINE: SCHEDULE 40 PVC, SIZE AS NOTED, 0.75" MIN.	X/L.X.XX
	SLEEVING: SCHEDULE 40 PVC, 4.0" MIN.	X/L.X.XX
	SWING CHECK VALVE, LINE SIZE	X/L.X.XX
C-1	CONTROLLER: HUNTER I-CORE, METAL OUTDOOR CABINET	X/L.X.XX
BP	BACKFLOW PREVENTER: SEE PLUMBING DRAWINGS/SEE CIVIL DRAWINGS	X/L.X.XX
MV	MASTER VALVE, NORMALLY OPEN	X/L.X.XX
FS	FLOW SENSOR	X/L.X.XX
RS	HUNTER RAIN-CLIK	X/L.X.XX
	QUICK COUPLER RAINBIRD 44RC	X/L.X.XX
	REMOTE VALVE: RAINBIRD PEB SERIES	X/L.X.XX
	MANUAL DRAIN VALVE: BRASS, AT LOW POINTS OF ZONE AND AT END OF EACH ZONE	X/L.X.XX
	EXISTING CONTROL VALVE: LOCATION NOTED ON DRAWINGS	X/L.X.XX

NOT FOR CONSTRUCTION



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REGISTERED
LANDSCAPE ARCHITECT
OREGON
JONATHAN BEAVER
5048

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JB/CO

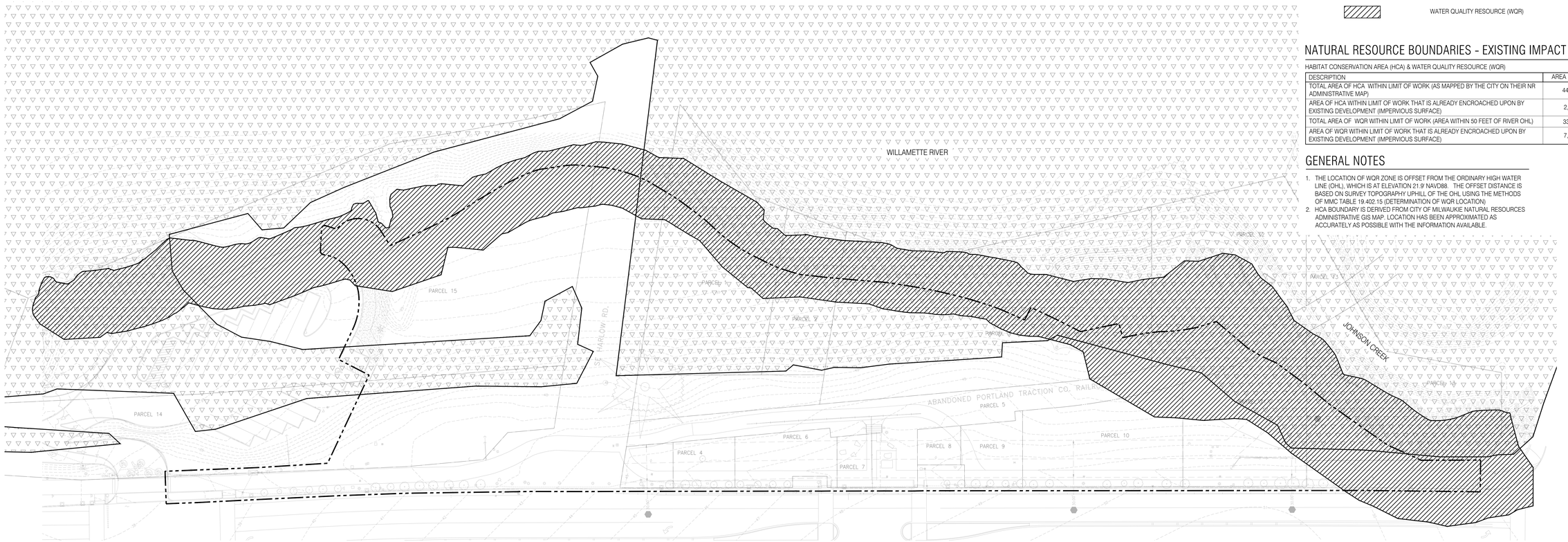
REVISIONS

DATE	DESCRIPTION	BY

IRRIGATION PLAN
AREA 4

L5.04

ONE INCH
DRAWING SET SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



LEGEND

- WORK LIMIT LINE
- HABITAT CONSERVATION AREA (HCA)
- WATER QUALITY RESOURCE (WQR)

NATURAL RESOURCE BOUNDARIES - EXISTING IMPACT

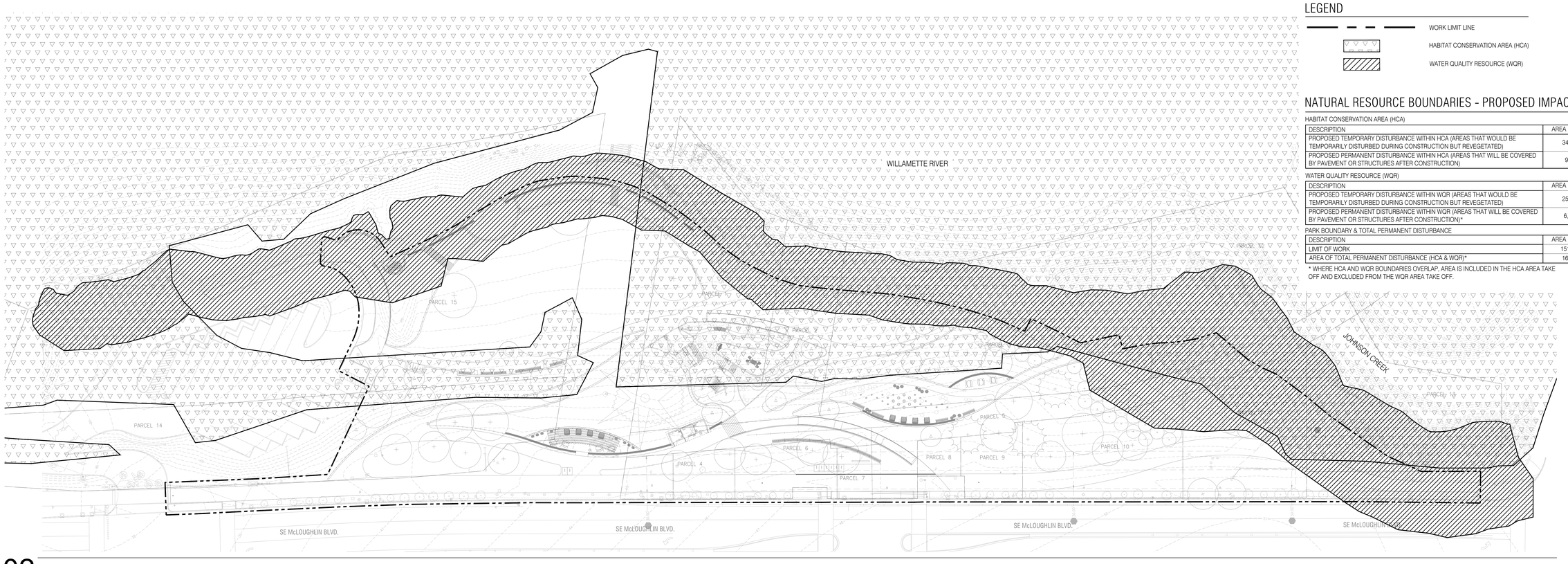
HABITAT CONSERVATION AREA (HCA) & WATER QUALITY RESOURCE (WQR)

DESCRIPTION	AREA (SQ. FT.)
TOTAL AREA OF HCA WITHIN LIMIT OF WORK (AS MAPPED BY THE CITY ON THEIR NR ADMINISTRATIVE MAP)	44,163
AREA OF HCA WITHIN LIMIT OF WORK THAT IS ALREADY ENCROACHED UPON BY EXISTING DEVELOPMENT (IMPERVIOUS SURFACE)	2,462
TOTAL AREA OF WQR WITHIN LIMIT OF WORK (AREA WITHIN 50 FEET OF RIVER OHL)	33758
AREA OF WQR WITHIN LIMIT OF WORK THAT IS ALREADY ENCROACHED UPON BY EXISTING DEVELOPMENT (IMPERVIOUS SURFACE)	7,066

GENERAL NOTES

1. THE LOCATION OF WQR ZONE IS OFFSET FROM THE ORDINARY HIGH WATER LINE (OHL), WHICH IS AT ELEVATION 21.9' NAVD88. THE OFFSET DISTANCE IS BASED ON SURVEY TOPOGRAPHY UPHILL OF THE OHL USING THE METHODS OF MMC TABLE 19.402.15 (DETERMINATION OF WQR LOCATION)
2. HCA BOUNDARY IS DERIVED FROM CITY OF MILWAUKIE NATURAL RESOURCES ADMINISTRATIVE GIS MAP. LOCATION HAS BEEN APPROXIMATED AS ACCURATELY AS POSSIBLE WITH THE INFORMATION AVAILABLE.

01 NATURAL RESOURCE BOUNDARY OVERLAY DIAGRAM - EXISTING CONDITIONS



LEGEND

- WORK LIMIT LINE
- HABITAT CONSERVATION AREA (HCA)
- WATER QUALITY RESOURCE (WQR)

NATURAL RESOURCE BOUNDARIES - PROPOSED IMPACT

HABITAT CONSERVATION AREA (HCA)

DESCRIPTION	AREA (SQ. FT.)
PROPOSED TEMPORARY DISTURBANCE WITHIN HCA (AREAS THAT WOULD BE TEMPORARILY DISTURBED DURING CONSTRUCTION BUT REVEGETATED)	34,492
PROPOSED PERMANENT DISTURBANCE WITHIN HCA (AREAS THAT WILL BE COVERED BY PAVEMENT OR STRUCTURES AFTER CONSTRUCTION)	9671

WATER QUALITY RESOURCE (WQR)

DESCRIPTION	AREA (SQ. FT.)
PROPOSED TEMPORARY DISTURBANCE WITHIN WQR (AREAS THAT WOULD BE TEMPORARILY DISTURBED DURING CONSTRUCTION BUT REVEGETATED)	25,136
PROPOSED PERMANENT DISTURBANCE WITHIN WQR (AREAS THAT WILL BE COVERED BY PAVEMENT OR STRUCTURES AFTER CONSTRUCTION)*	6,808

PARK BOUNDARY & TOTAL PERMANENT DISTURBANCE

DESCRIPTION	AREA (SQ. FT.)
LIMIT OF WORK	151,453
AREA OF TOTAL PERMANENT DISTURBANCE (HCA & WQR)*	16,479

* WHERE HCA AND WQR BOUNDARIES OVERLAP, AREA IS INCLUDED IN THE HCA AREA TAKE OFF AND EXCLUDED FROM THE WQR AREA TAKE OFF.

02 NATURAL RESOURCE BOUNDARY OVERLAY DIAGRAM - PROPOSED SITE PLAN

NOT FOR CONSTRUCTION

SCALE 1"=30'

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www.2inkstudio.com

REGISTERED
JONATHON REAVER
2/16/2016
OREGON
LANDSCAPE ARCHITECT

MILWAUKIE BAY PARK

100% Design Development

project address

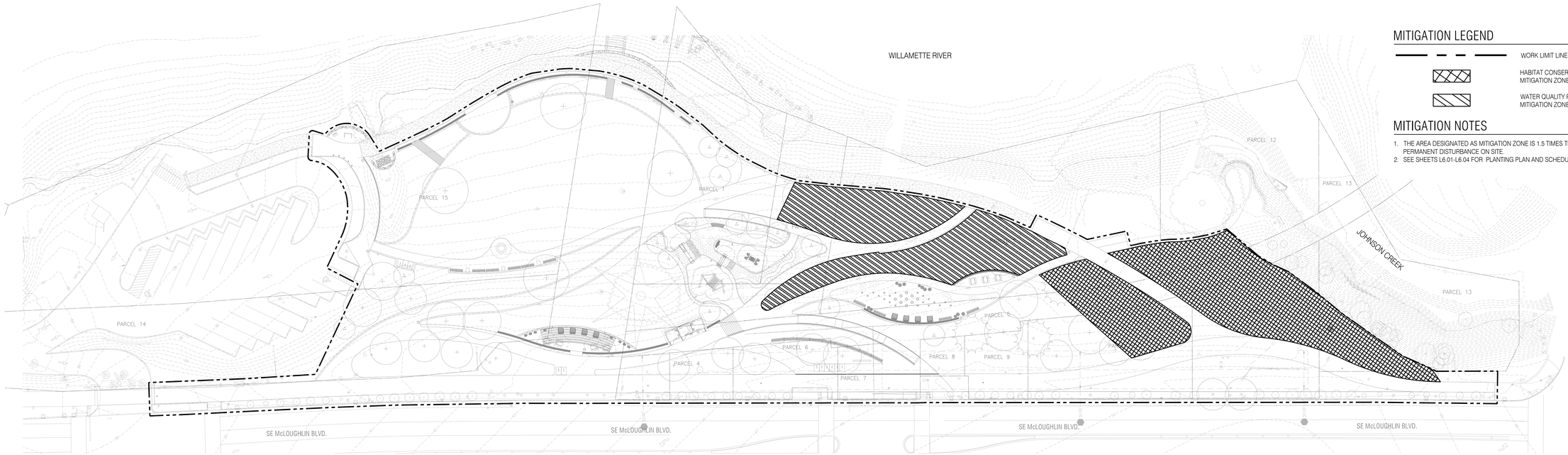
DRAWN BY: JW
SCALE: AS NOTED
DATE: 06/03/2022

REVISIONS		
DATE	DESCRIPTION	BY

NATURAL RESOURCE BOUNDARIES

L6.00A

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



MITIGATION LEGEND

- WORK LIMIT LINE
- HABITAT CONSERVATION AREA (HCA) MITIGATION ZONE ~14,506 SF
- WATER QUALITY RESOURCE (WQR) MITIGATION ZONE ~10,212 SF

MITIGATION NOTES

1. THE AREA DESIGNATED AS MITIGATION ZONE IS 1.5 TIMES THE AREA OF PERMANENT DISTURBANCE ON SITE.
2. SEE SHEETS L6.01-L6.04 FOR PLANTING PLAN AND SCHEDULE.

03 NATURAL RESOURCE MITIGATION ZONE DIAGRAM

NOT FOR CONSTRUCTION

SCALE 1"=30'

0 15 30 60 90 150FT

ONE INCH [DRAWING SET] SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

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OREGON

MILWAUKIE BAY PARK

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project address

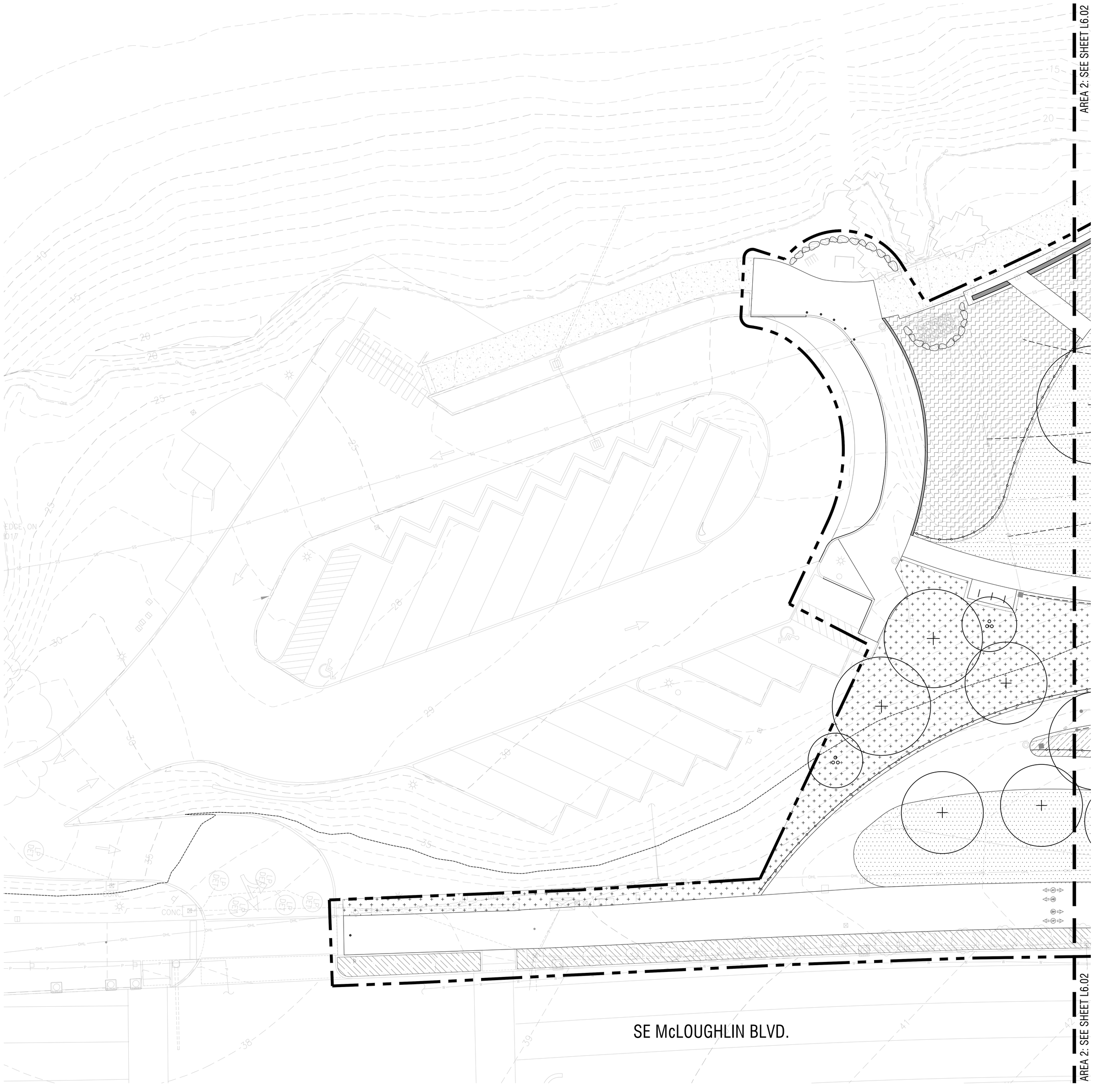
DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW

REVISIONS

DATE	DESCRIPTION	BY

MITIGATION PLAN

L6.00B



PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CERCIDIPHYLLUM JAPONICUM' KATSURA	TBD	AS SHOWN	TBD
	RHAMNUS PURSHIANA*(M) CASCARA BUCKTHORN	1/2 IN CALIPER	12' O.C.	32
	QUERCUS GARRYANA* OREGON WHITE OAK	TBD	AS SHOWN	TBD
	ALNUS RUBRA*(M) RED ALDER	1/2 IN CALIPER	12' O.C.	32
	INCENSE CEDAR CALOCEDRUS DECURRENS	TBD	AS SHOWN	TBD
	BETULA NIGRA RIVER BIRCH	TBD	AS SHOWN	TBD
	CORNUS NUTTALLII*(M) PACIFIC DOGWOOD	1/2 IN CALIPER	12' O.C.	33
	ACER MACROPHYLLUM* BIG LEAF MAPLE	TBD	AS SHOWN	TBD
	QUERCUS VELUTINA BLACK OAK	TBD	AS SHOWN	TBD
	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
		QUANTITY OF TREES FOR HCA MITIGATION EA		97
		TOTAL EA		165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	POLYSTICHUM MUNITUM** SWORD FERN	1 GAL.	3' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	1 GAL.	4' O.C.	170
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	1 GAL.	8' O.C.	170
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	1' O.C.	TBD
	ERIOPHYLLUM LANATUM** WOOLY SUNFLOWER	1 GAL.	3' O.C.	TBD
	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
	MAHONIA 'SOFT CARESS' PP20183 SOFT CARESS' MAHONIA	TBD	AS SHOWN	TBD
	JUNIPERUS CONFERTA PACIFIC BLUE SHORE JUNIPER	TBD	AS SHOWN	TBD
	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	TBD	AS SHOWN	TBD
			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	WILDFLOWER SEED MIX** SPECIES VARY	N/A	N/A	TBD
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	TBD	TBD
	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
	FESTUCA SUBULATA** BEARDED FESCUE	1 GAL.	5' O.C.	TBD
	ELYMUS GLAUCUS** BLUE WILDRYE	1 GAL.	5' O.C.	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	1 GAL.	5' O.C.	TBD
	POA SECUNDA** PINE BLUEGRASS	1 GAL.	5' O.C.	TBD
	CAMASSIA QUAMASH** COMMON CAMAS	1 GAL.	5' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	TBD	5' O.C.	508
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	TBD	8' O.C.	217
			TOTAL SQ FT	16,802
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		725

RIPARIAN

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ELYMUS GLAUCUS** BLUE WILD RYE	TBD	2' O.C.	TBD
	ISANTI RED-OSIER DOGWOOD CORNUS SERICEA 'ISANTI'	TBD	12' O.C.	TBD
	LUPINUS BICOLOR** MINIATURE LUPINE	TBD	AS SHOWN	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	TBD	1' O.C.	TBD
	IRIS TENAX** OREGON IRIS	TBD	1' O.C.	TBD
	JUNCUS PATENS 'ELK BLUE'** ELK BLUE CALIFORNIA GRAY RUSH	TBD	2' O.C.	TBD
	NATIVE SWALE MIX** MEADOW BARLEY, CALIFORNIA OATGRASS, BLUE WILDRYE, ROEMERS FESCUE, TUFTED HAIRGRASS, SPIKE BENT GRASS, WATER FOXTAIL, SLENDER HAIRGRASS	N/A	N/A	TBD
			TOTAL SQ FT	6,717

TURF

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	FESTUCA ARUNDINACEA TALL FESCUE	TBD	N/A	TBD
			TOTAL SQ FT	25,618

ORNAMENTAL INFILL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS, SPECIES TBD (MATCH EXISTING)	TBD	TBD	TBD
			TOTAL SQ FT	5,982 (TOTAL) 1,794 (30%)

* DESIGNATES TREES IDENTIFIED ON 'MILWAUKIE NATIVE TREE LIST'
**DESIGNATES PLANTS IDENTIFIED AS NATIVE ON 'PORTLAND PLANT LIST'
(M) DESIGNATES TREES REQUIRED FOR NATURAL RESOURCE MITIGATION

SCALE 1"=10'

NOT FOR CONSTRUCTION

ONE INCH | DRAWING SET SCALE
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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK
100% Design Development
project address

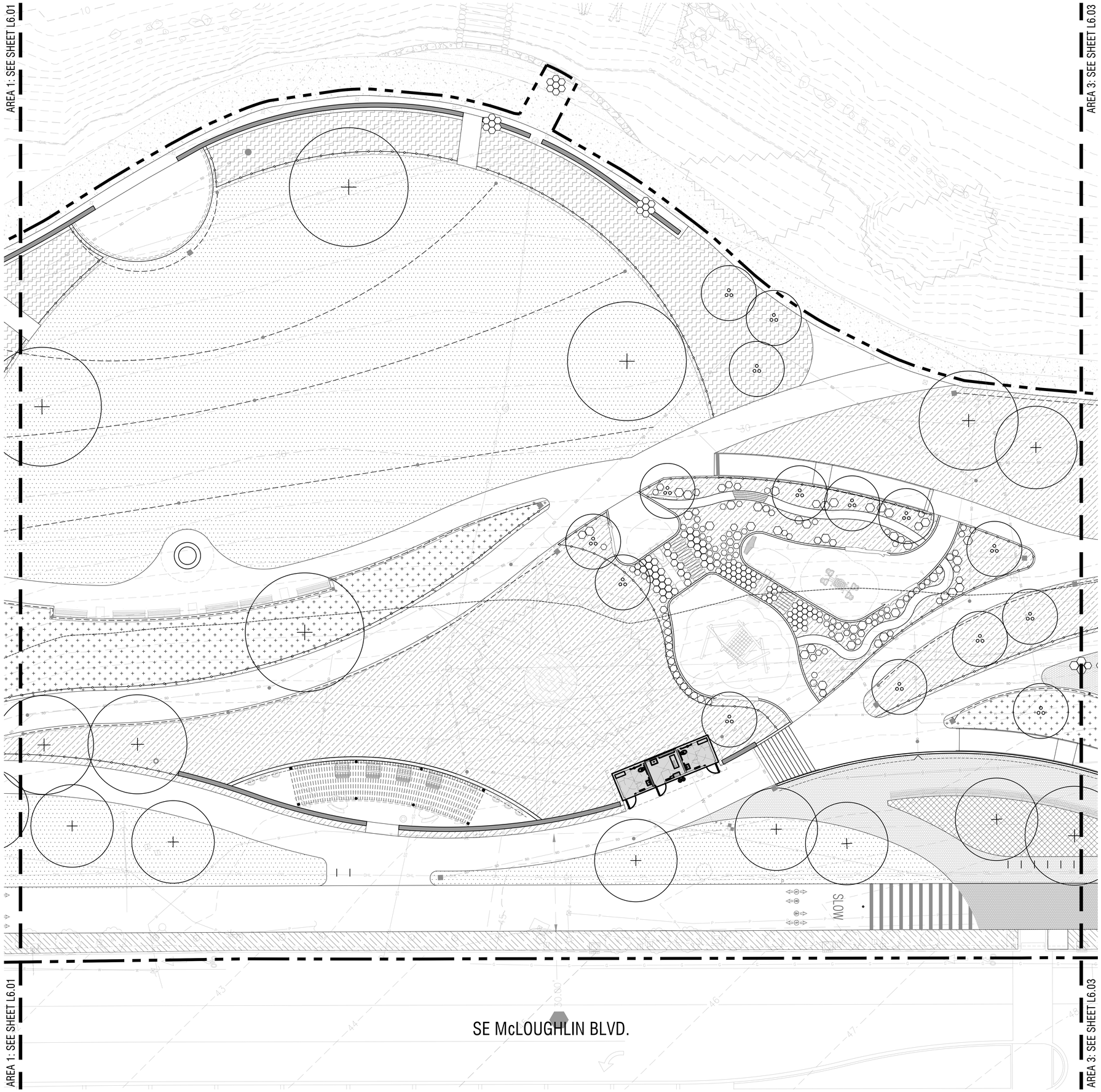
DRAWN BY: JW/JB
SCALE: AS NOTED
DATE: 06/03/2022

REVISIONS

DATE	DESCRIPTION	BY

PLANTING PLAN
AREA 1

L6.01



AREA 3: SEE SHEET L6.03

PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CERCIDIPHYLLUM JAPONICUM' KATSURA	TBD	AS SHOWN	TBD
	RHAMNUS PURSHIANA*(M) CASCARA BUCKTHORN	1/2 IN CALIPER	12' O.C.	32
	QUERCUS GARRYANA* OREGON WHITE OAK	TBD	AS SHOWN	TBD
	ALNUS RUBRA*(M) RED ALDER	1/2 IN CALIPER	12' O.C.	32
	INCENSE CEDAR CALOCEDRUS DECURRENS	TBD	AS SHOWN	TBD
	BETULA NIGRA RIVER BIRCH	TBD	AS SHOWN	TBD
	CORNUS NUTTALLII*(M) PACIFIC DOGWOOD	1/2 IN CALIPER	12' O.C.	33
	ACER MACROPHYLLUM* BIG LEAF MAPLE	TBD	AS SHOWN	TBD
	QUERCUS VELUTINA BLACK OAK	TBD	AS SHOWN	TBD
	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
		QUANTITY OF TREES FOR HCA MITIGATION EA		97
		TOTAL EA		165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	POLYSTICHUM MUNITUM** SWORD FERN	1 GAL.	3' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	1 GAL.	4' O.C.	170
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	1 GAL.	8' O.C.	170
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	1' O.C.	TBD
	ERIOPHYLLUM LANATUM** WOOLY SUNFLOWER	1 GAL.	3' O.C.	TBD
	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
	MAHONIA 'SOFT CARESS' PP20183 'SOFT CARESS' MAHONIA	TBD	AS SHOWN	TBD
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	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	TBD	AS SHOWN	TBD
			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
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	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
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RIPARIAN

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	JUNCUS PATENS 'ELK BLUE'** ELK BLUE CALIFORNIA GRAY RUSH	TBD	2' O.C.	TBD
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ORNAMENTAL INFILL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS, SPECIES TBD (MATCH EXISTING)	TBD	TBD	TBD
			TOTAL SQ FT	5,982 (TOTAL) 1,794 (30%)

* DESIGNATES TREES IDENTIFIED ON 'MILWAUKIE NATIVE TREE LIST'
**DESIGNATES PLANTS IDENTIFIED AS NATIVE ON 'PORTLAND PLANT LIST'
(M) DESIGNATES TREES REQUIRED FOR NATURAL RESOURCE MITIGATION

NOT FOR CONSTRUCTION

SCALE 1"=10'

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REGISTERED LANDSCAPE ARCHITECT
OREGON
EXPIRATION RENEWAL DATE

MILWAUKIE BAY PARK
100% Design Development
project address

DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW,JB

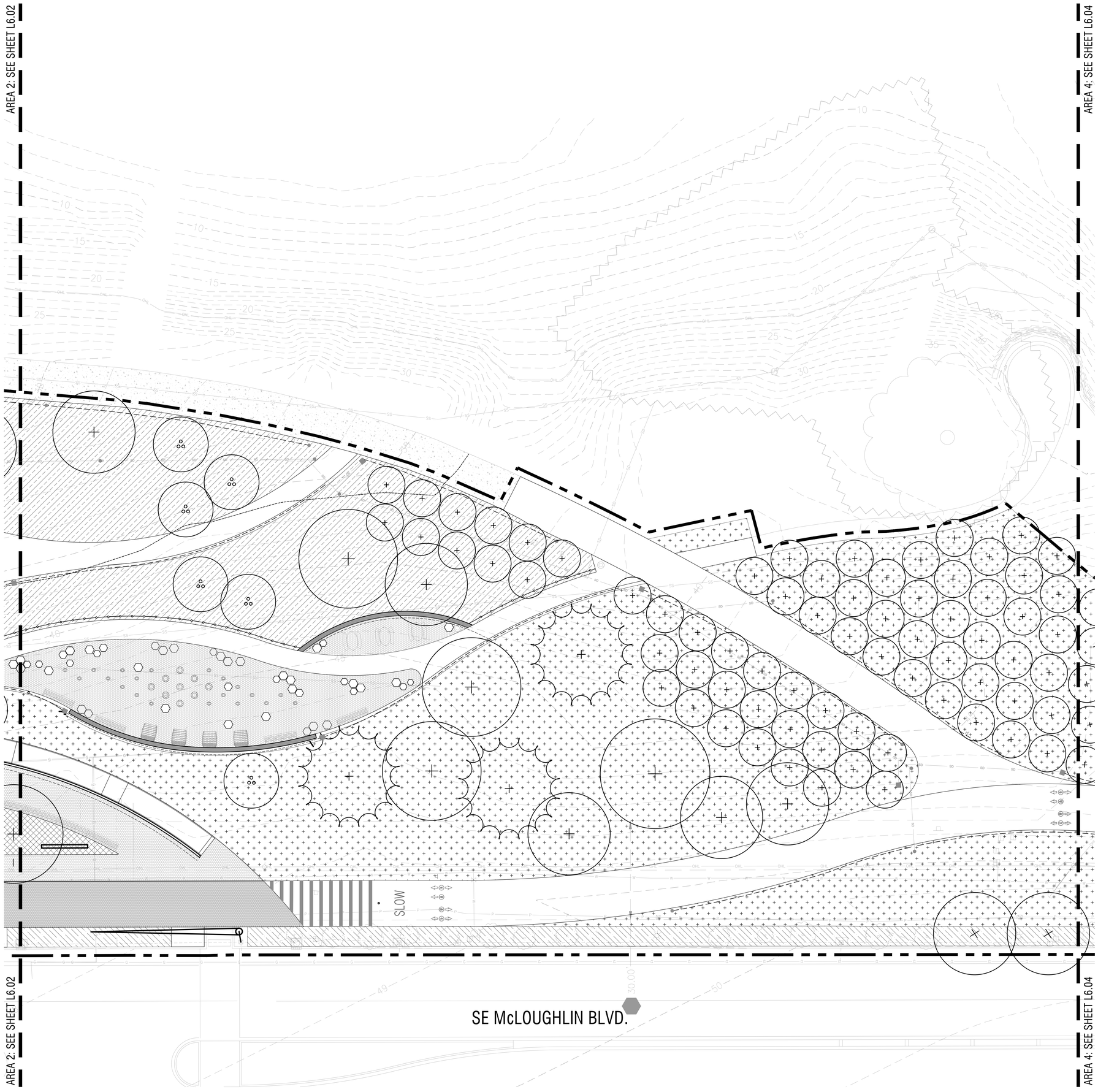
REVISIONS

DATE	DESCRIPTION	BY

PLANTING PLAN
AREA 2

L6.02

ONE INCH
[DRAWING SET] SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
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	ALNUS RUBRA*(M) RED ALDER	1/2 IN CALIPER	12' O.C.	32
	INCENSE CEDAR CALOCEDRUS DECURRENS	TBD	AS SHOWN	TBD
	BETULA NIGRA RIVER BIRCH	TBD	AS SHOWN	TBD
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	QUERCUS VELUTINA BLACK OAK	TBD	AS SHOWN	TBD
	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
			QUANTITY OF TREES FOR HCA MITIGATION EA	97
			TOTAL EA	165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	POLYSTICHUM MUNITUM** SWORD FERN	1 GAL.	3' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	1 GAL.	4' O.C.	170
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	1 GAL.	8' O.C.	170
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	1' O.C.	TBD
	ERIOPHYLLUM LANATUM** WOOLY SUNFLOWER	1 GAL.	3' O.C.	TBD
	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
			APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA	511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
	MAHONIA 'SOFT CARESS' PP20183 'SOFT CARESS' MAHONIA	TBD	AS SHOWN	TBD
	JUNIPERUS CONFERTA PACIFIC BLUE SHORE JUNIPER	TBD	AS SHOWN	TBD
	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	TBD	AS SHOWN	TBD
			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	WILDFLOWER SEED MIX** SPECIES VARY	N/A	N/A	TBD
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	TBD	TBD
	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
	FESTUCA SUBULATA** BEARDED FESCUE	1 GAL.	5' O.C.	TBD
	ELYMUS GLAUCUS** BLUE WILDRYE	1 GAL.	5' O.C.	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	1 GAL.	5' O.C.	TBD
	POA SECUNDA** PINE BLUEGRASS	1 GAL.	5' O.C.	TBD
	CAMASSIA QUAMASH** COMMON CAMAS	1 GAL.	5' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	TBD	5' O.C.	508
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	TBD	8' O.C.	217
			TOTAL SQ FT	16,802
			APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA	725

RIPARIAN

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ELYMUS GLAUCUS** BLUE WILD RYE	TBD	2' O.C.	TBD
	ISANTI RED-OSIER DOGWOOD CORNUS SERICEA 'ISANTI'	TBD	12' O.C.	TBD
	LUPINUS BICOLOR** MINIATURE LUPINE	TBD	AS SHOWN	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	TBD	1' O.C.	TBD
	IRIS TENAX** OREGON IRIS	TBD	1' O.C.	TBD
	JUNCUS PATENS 'ELK BLUE'** ELK BLUE CALIFORNIA GRAY RUSH	TBD	2' O.C.	TBD
	NATIVE SWALE MIX** MEADOW BARLEY, CALIFORNIA OATGRASS, BLUE WILDRYE, ROEMER'S FESCUE, TUFTED HAIRGRASS, SPIKE BENT GRASS, WATER FOXTAIL, SLENDER HAIRGRASS	N/A	N/A	TBD
			TOTAL SQ FT	6,717

TURF

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	FESTUCA ARUNDINACEA TALL FESCUE	TBD	N/A	TBD
			TOTAL SQ FT	25,618

ORNAMENTAL INFILL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS, SPECIES TBD (MATCH EXISTING)	TBD	TBD	TBD
			TOTAL SQ FT	5,982 (TOTAL) 1,794 (30%)

* DESIGNATES TREES IDENTIFIED ON 'MILWAUKIE NATIVE TREE LIST'
**DESIGNATES PLANTS IDENTIFIED AS NATIVE ON 'PORTLAND PLANT LIST'
(M) DESIGNATES TREES REQUIRED FOR NATURAL RESOURCE MITIGATION

NOT FOR CONSTRUCTION

SCALE 1"=10'

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503.546.4645
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REGISTERED LANDSCAPE ARCHITECT
EXP. 6/30
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW/JB

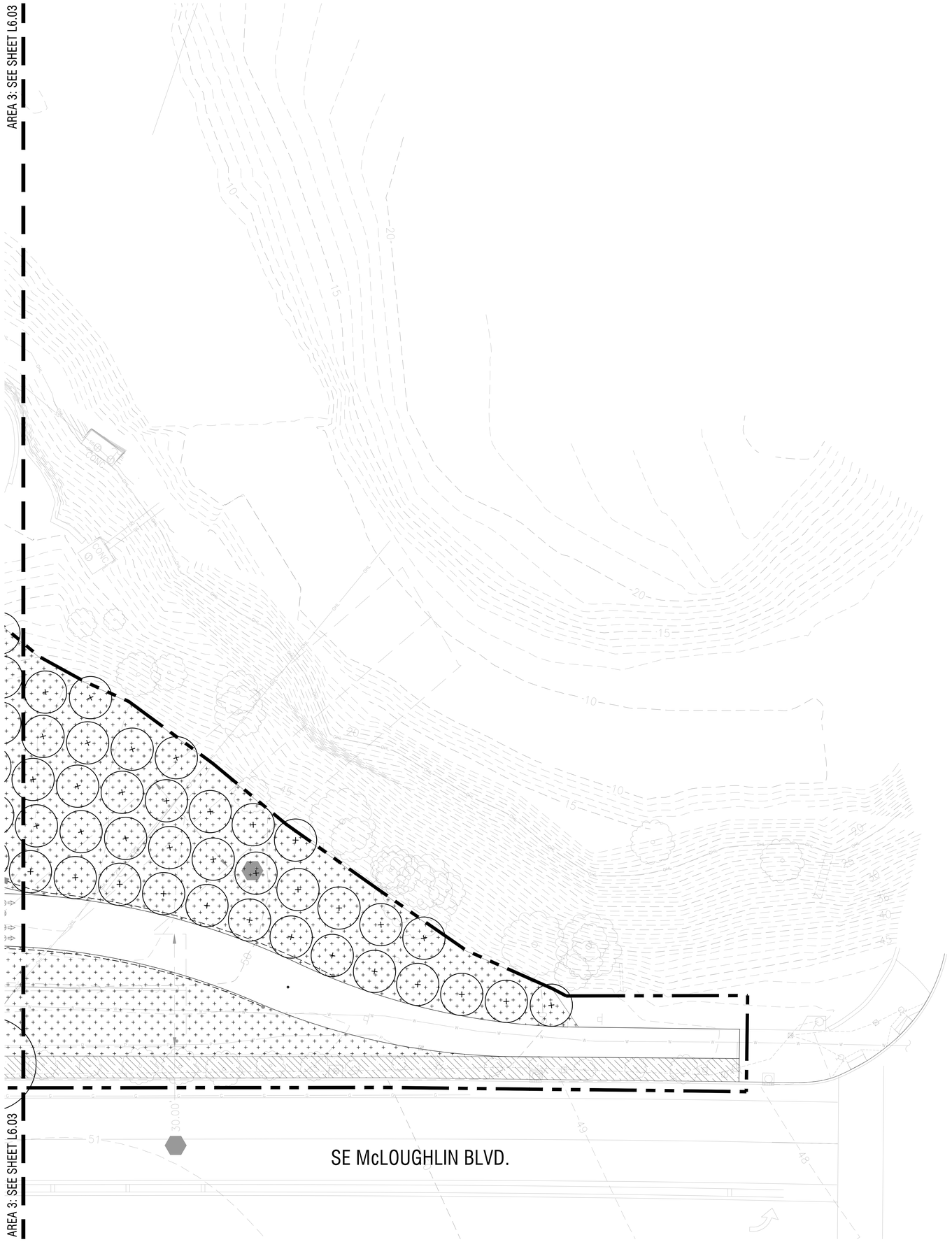
REVISIONS

DATE	DESCRIPTION	BY

PLANTING PLAN
AREA 3

L6.03

DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
1" ONE INCH



NOT FOR CONSTRUCTION

ONE INCH | DRAWING SET SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CERCIDIPHYLLUM JAPONICUM' KATSURA	TBD	AS SHOWN	TBD
	RHAMNUS PURSHIANA*(M) CASCARA BUCKTHORN	1/2 IN CALIPER	12' O.C.	32
	QUERCUS GARRYANA* OREGON WHITE OAK	TBD	AS SHOWN	TBD
	ALNUS RUBRA*(M) RED ALDER	1/2 IN CALIPER	12' O.C.	32
	INCENSE CEDAR CALOCEDRUS DECURRENS	TBD	AS SHOWN	TBD
	BETULA NIGRA RIVER BIRCH	TBD	AS SHOWN	TBD
	CORNUS NUTTALLII*(M) PACIFIC DOGWOOD	1/2 IN CALIPER	12' O.C.	33
	ACER MACROPHYLLUM* BIG LEAF MAPLE	TBD	AS SHOWN	TBD
	QUERCUS VELUTINA BLACK OAK	TBD	AS SHOWN	TBD
	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
		QUANTITY OF TREES FOR HCA MITIGATION EA		97
		TOTAL EA		165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	POLYSTICHUM MUNITUM** SWORD FERN	1 GAL.	3' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	1 GAL.	4' O.C.	170
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	1 GAL.	8' O.C.	170
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	1' O.C.	TBD
	ERIOPHYLLUM LANATUM** WOOLY SUNFLOWER	1 GAL.	3' O.C.	TBD
	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
	MAHONIA 'SOFT CARESS' PP20183 'SOFT CARESS' MAHONIA	TBD	AS SHOWN	TBD
	JUNIPERUS CONFERTA PACIFIC BLUE SHORE JUNIPER	TBD	AS SHOWN	TBD
	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	TBD	AS SHOWN	TBD
			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	WILDFLOWER SEED MIX** SPECIES VARY	N/A	N/A	TBD
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	TBD	TBD
	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
	FESTUCA SUBULATA** BEARDED FESCUE	1 GAL.	5' O.C.	TBD
	ELYMUS GLAUCUS** BLUE WILDRYE	1 GAL.	5' O.C.	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	1 GAL.	5' O.C.	TBD
	POA SECUNDA** PINE BLUEGRASS	1 GAL.	5' O.C.	TBD
	CAMASSIA QUAMASH** COMMON CAMAS	1 GAL.	5' O.C.	TBD
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			TOTAL SQ FT	6,717

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	FESTUCA ARUNDINACEA TALL FESCUE	TBD	N/A	TBD
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SCALE 1"= 10'

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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 | SCALE: AS NOTED | DRAWN BY: JW/JB

REVISIONS

DATE	DESCRIPTION	BY

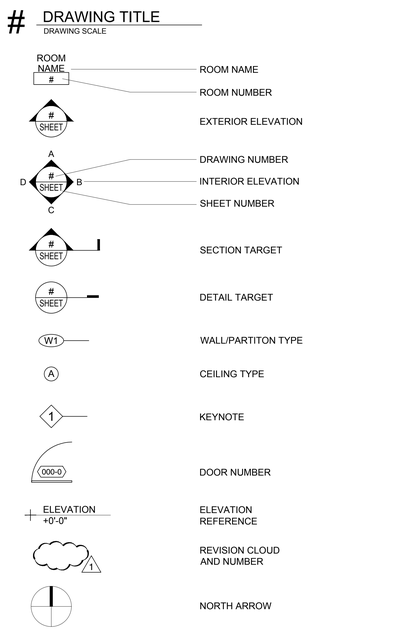
PLANTING PLAN
AREA 4

L6.04

ABBREVIATIONS

℄	CENTERLINE
Ø	DIAMETER or ROUND
°	DEGREE
AFF	ABOVE FINISHED FLOOR
ALG	ALIGN
BD	BOARD
B.O.	BOTTOM OF
BRK	BRICK
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CJ	CONTROL JOINT
CONC	CONCRETE
CONT	CONTINUOUS, CONTINUE
CPT	CARPET
CT	CERAMIC TILE
DIAM	DIAMETER
DS	DOWNSPOUT
DW	DISHWASHER
E	EAST
EQ	EQUAL
(E)	EXISTING
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FLR	FLOOR
FO	FACE OF
FOC	FACE OF CONCRETE
FT	FOOT(FEET)
GA	GAGE,GAUGE
GB	GRAB BAR
GWB,GYP BD	GYPSUM BOARD
HB	HOSE BIBB
HC	HANDICAP
HDG	HOT DIPPED GALVANIZED
HM	HOLLOW METAL
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HWD	HARDWOOD
ID	INSIDE DIAMETER, IDENTIFY
INSUL	INSULATION
INT	INTERIOR
LAV	LAVATORY
MAX	MAXIMUM
MIN	MINIMUM
N	NORTH
NIC	NOT IN CONTRACT
NIS	NOT IN SCOPE
(N)	NEW
NTS	NOT TO SCALE
O/	OVER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PLYWD	PLYWOOD
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
PT	PRESSURE TREATED
P, PTD	PAINT(ED)
R	RISER
RE	REFER TO
REF	REFRIGERATOR
REINF	REINFORCE(D)(ING)
REQ, REQ'D	REQUIRE(D)(MENTS)
RO	ROUGH OPENING
S	SOUTH
SAM	SELF ADHESIVE MEMBRANE
SC	SOLID CORE
SHTNG	SHEATHING
SIM	SIMILAR
SL	SLOPE
SPECS	SPECIFICATIONS
SS	SOLID SURFACE
SST	STAINLESS STEEL
SSD	SEE STRUCTURAL DRAWINGS
ST	STONE, STAINED
TEMP, T	TEMPERED GLASS
TR	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T.O.	TOP OF
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VTA	VENT TO AIR
VIF	VERIFY IN FIELD
W	WEST
WB	WALL BASE

SYMBOLS



SUBMITTAL REQUIREMENTS

1. GENERAL:

A. THE ARCHITECT'S OR ENGINEER OF RECORD'S REVIEW OF SUBMITTALS SHALL BE FOR DESIGN INTENT AND SHALL NOT LESSEN OR SHIFT THE RESPONSIBILITY FROM THE APPLICANT OR THE ASSIGNED SUBCONTRACTOR TO THE OWNER NOR THE DESIGN PROFESSIONAL. IT WILL NOT BE THE RESPONSIBILITY OF THE OWNER TO PAY FOR DELAYS, ADDITIONAL HOURS OF WORK OR OVERTIME, RESTOCKING OR REWORK REQUIRED DUE TO FAILURE BY THE APPLICANT OR ASSIGNED SUBCONTRACTOR TO COORDINATE THEIR WORK WITH OTHER TRADES ON THE PROJECT OR TO PROVIDE THE DESIGN BUILD PORTION OR COMPONENT IN A TIMELY MANNER TO MEET THE SCHEDULE OF THE PROJECT.

B. SUBMITTALS ARE REQUIRED TO SHOW COMPLETE CRITERIA, DESIGN ASSUMPTIONS, DETAILS, CALCULATIONS, SHOP DRAWINGS, PRODUCT DATA, SAMPLES, INSTRUCTIONS FOR FABRICATION, ASSEMBLY, INSTALLATION AND INTERFACE WITH OTHER TRADES, UNLESS NOTED OTHERWISE.

C. SUBMITTALS WITHOUT REQUIRED CALCULATIONS, WITHOUT THE DESIGN BUILD ENGINEER'S SEAL, AND WHICH HAVE NOT BEEN REVIEWED BY THE CONTRACTOR WILL NOT BE REVIEWED BY THE ARCHITECT OR ENGINEER OF RECORD.

D. SUBMITTALS WILL BE REVIEWED AND RETURNED WITHIN 10 DAYS PLUS AN ADDITIONAL 5 DAYS FOR EACH REQUIRED CONSULTANT REVIEW.

2. SPECIFIC REQUIREMENTS

A. SOME BIDDER DESIGNED COMPONENTS ARE SHOWN ON THE CONTRACT DOCUMENTS FOR DESIGN INTENT. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING, COORDINATING, AND INSTALLING THE BIDDER DESIGNED COMPONENTS.

B. BIDDER DESIGNED COMPONENTS ATTACHED TO THE STRUCTURAL FRAME OR SUPPLEMENTAL TO THE STRUCTURAL FRAME SHALL BE DESIGNED FOR ANTICIPATED LOADS AS OUTLINED IN THE CONTRACT DOCUMENTS.

C. LOAD REACTIONS AT THE INTERFACE BETWEEN THE BIDDER DESIGNED COMPONENTS AND THE STRUCTURAL FRAME SHALL BE CLEARLY DEFINED TO ALLOW FOR A REVIEW BY THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.

3. REQUIRED SUBMITTAL LIST:

A. SUBMITTALS REQUIRED FOR ARCHITECT'S REVIEW:
- ALL PLUMBING FIXTURES
- ALL ELECTRICAL: LIGHT FIXTURES, LAYOUT, SWITCHING, ETC
- ALL DOORS + HARDWARE
- ALL WINDOWS + HARDWARE
- ALL CASEWORK + HARDWARE
- ALL FINISH MATERIALS: FLOORING, WALL COVERING, PAINT, ETC.
- ALL EXTERIOR MATERIALS: SIDING, ROOFING, EXPOSED METAL FLASHING, ETC.
- ALL EQUIPMENT + APPLIANCES

NOTE: REQUIRED SUBMITTALS FOR ARCHITECT'S REVIEW ARE NOT LIMITED TO THE SUBMITTALS LISTED ABOVE. REFERENCE PROJECT MANUAL.

GENERAL NOTES

A. BIDDER SHALL VISIT THE SITE AND PROJECT TO FIELD VERIFY EXISTING CONDITIONS AFFECTING HIS WORK PRIOR TO BIDDING. ANY EXISTING CONDITION FOUND NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSULTANTS IMMEDIATELY, PRIOR TO BIDDING OR START OF ANY WORK.

B. NOTES, SECTIONS, AND DETAILS DESCRIBING THE TYPE OF COMPONENT OR NECESSARY WORK TO THAT COMPONENT ARE TYPICAL FOR ALL SIMILAR ITEMS, AND THE NOTE, SECTION, OR DETAIL SHALL APPLY AS IF CALLED OUT SEPARATELY AT EACH LOCATION. THE DETAILS REFLECT A DESIGN OF THE SPECIFIC CONDITION(S) DETAILED. IF, DURING THE PROGRESS OF THE WORK EXISTING CONDITIONS DIFFER FROM THOSE INDICATED ON THE DRAWINGS TO THE EXTENT THAT THE CONTRACTOR MUST MAKE MODIFICATIONS TO THE GIVEN DETAILS TO MAKE THE DETAIL COMPATIBLE WITH THE EXISTING CONDITIONS, THE CONTRACTOR SHALL OBTAIN A REVISED DETAIL FROM THE CONSULTANTS PRIOR TO THAT DETAIL BEING CONSTRUCTED.

C. CONFLICTS AND/OR PROBLEMS SHALL BE REPORTED PRIOR TO BIDDING FOR RESOLUTION. FAILURE TO REPORT THESE CONFLICTS PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. AT THE CONSULTANTS DIRECTION, AT NO ADDITIONAL COST TO THE OWNER.

D. ALL NOTES DESCRIBING COMPONENTS, SYSTEMS, OR CONSTRUCTION NOT NOTED AS "(E)", "(EXIS)" OR "EXISTING" ARE NEW, AND ARE REQUIRED TO BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

E. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL FOR ALL SPECIALITY CONNECTIONS, TRANSITIONS, AND TERMINATIONS OF ALL ITEMS OF THE WORK INCLUDING SADDLES, FLASHINGS, AND OTHER INDUSTRY RECOGNIZED ITEMS THAT MAKE THE WORK COMPLETE.

F. USE DIMENSIONS SHOWN. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM DRAWINGS.

G. DIMENSIONS ARE PROVIDED TO FACE OF FINISH, UNLESS NOTED OTHERWISE. CLEAR DIMENSIONS (NOTED 'CLR') ARE TO BE MAINTAINED FROM FINISH TO FINISH.

H. CONTRACTOR TO BE RESPONSIBLE FOR ALL NECESSARY TESTING AND COORDINATING ALL REQUIRED OBSERVATION AND INSPECTION.

I. ALL DOOR JAMBS TO BE LOCATED 4" FROM ADJACENT WALL, UNLESS NOTED OTHERWISE.

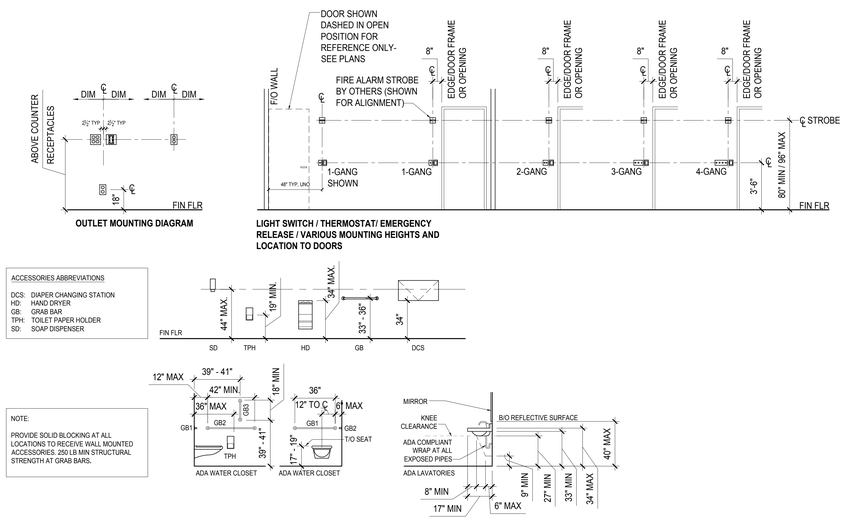
PROJECT INFORMATION

PROJECT ADDRESS:	MILWAUKIE BAY PARK
BUILDING DESCRIPTION:	TRELLIS SHADE STRUCTURE AND RESTROOM & PARK MECHANICAL ROOM STRUCTURE
SCOPE OF WORK:	NEW SHADE STRUCTURE. NEW STRUCTURE FOR 2 ADA RESTROOMS, STORAGE, AND MECHANICAL ROOM TO SERVE PARK.

ACCESSIBILITY

ALL ASPECTS OF THIS PROJECT ARE TO COMPLY WITH THE ACCESSIBILITY REQUIREMENTS AS DEFINED BY CHAPTER 11 OF THE 2019 OREGON STRUCTURAL SPECIALTY CODE AND THE 2009 ICC A117.1 ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES.

DEVICE MOUNTING HEIGHTS DIAGRAM



DOOR SCHEDULE/TYPES AND FFE

MARK	SIZE		DOOR TYPE	DOOR MAT.	U-VALUE	DOOR FIN.	FRAME TYPE	FRAME MAT.	FRAME FIN.	HARDWARE	NOTES
	WIDTH	HEIGHT									
101-1	3'-0"	8'-0"	A	HM W/ POLYURETHANE CORE	U - 0.38	PT-3	A	HM	PT-3	AA	
102-1	3'-0"	8'-0"	A	HM W/ POLYURETHANE CORE	U - 0.38	PT-3	A	HM	PT-3	AA	
103-1	3'-0"	8'-0"	A	HM W/ POLYURETHANE CORE	U - 0.38	PT-3	A	HM	PT-3	AA	

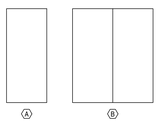
LEGEND

PT-3	PAINT
HM	HOLLOW METAL

NOTES

ALL DOORS TO BE CLAD WITH PREFABRICATED CEDAR SCREENS

DOOR TYPES



FRAME TYPES

DOOR HARDWARE

AA
(3) HINGES : FULL MORTISE, BALL BEARING, HEAVY WEIGHT.
(1) MAG LOCK W/ TIMER AND EMERGENCY RELEASE INSIDE, KEYED RELEASE OUTSIDE
(1) DEADBOLT W/ INDICATOR, THUMB OPERATION
(1) SURFACE CLOSER
(1) WALL STOP
(1) SET OF SEALS AND WEATHERSTRIPPING
(1) ADA THRESHOLD
(1) FOOT OPERATED DOOR OPENER
(1) ADA COMPLIANT DOOR PULL

BB
(2) HINGES : FULL MORTISE, BALL BEARING, HEAVY WEIGHT.
(1) STOREROOM LOCKSET
(1) SURFACE CLOSER
(1) ADA THRESHOLD
(1) MANUAL FLUSH-BOLT ON INACTIVE LEAF (NO OTHER HARDWARE ON INACTIVE LEAF)

CODE INFORMATION - RESTROOM

GOVERNING CODES

BUILDING CODE EDITION:	2019 OREGON STRUCTURAL SPECIALTY CODE 2019 OREGON MECHANICAL SPECIALTY CODE 2017 OREGON PLUMBING SPECIALTY CODE 2017 OREGON ELECTRICAL SPECIALTY CODE 2019 OREGON ZERO ENERGY READY COMMERCIAL CODE 2014 OREGON FIRE CODE

BUILDING CONSTRUCTION AND AREA DATA

CONSTRUCTION TYPE: (SECTION 601)	TYPE V-B, (NON-COMBUSTIBLE, NON-RATED) CONCRETE EXTERIOR WALLS, STEEL FRAME, CONCRETE FLOORS, METAL ROOF			
ALLOWABLE HEIGHT & BUILDING AREA: (504.3, 504.4, 506.2)	GROUPS	BASIC ALLOWABLE AREA (SF)	BASIC ALLOWABLE HEIGHT (STORIES)	BASIC ALLOWABLE HEIGHT (FEET)
	A & U	6,000 SF PER STORY	1 STORIES	40 FEET
HEIGHT MODIFICATIONS:	NONE REQUIRED			
AREA MODIFICATIONS:	NONE REQUIRED			
BASEMENT REQUIREMENTS	NO BASEMENT IN THIS BUILDING			
FIRE SUPPRESSION SYSTEM	NONE REQUIRED, NONE PROPOSED			
PROPOSED HEIGHT	10'-0"			
PROPOSED AREA	277 SF ENCLOSED + 180 COVERED OUTDOOR SPACE			

BUILDING OCCUPANCY AND EGRESS

OCCUPANCY GROUPS:		GROUP	CODE DESCRIPTION
FIRST FLOOR:	ASSEMBLY	A-3	ASSEMBLY USE INTENDED FOR RECREATION AND OTHER ASSEMBLY USES NOT CLASSIFIED ELSE-WHERE IN GROUP A
	UTILITY AND MISCELLANEOUS	U	BUILDINGS AND STRUCTURES OF ACCESSORY CHARACTER AND MISCELLANEOUS STRUCTURES NOT CLASSIFIED IN ANY SPECIFIC OCCUPANCY.
OCCUPANT AREAS:	UTILITY OCCUPANCY: 277 SF ASSEMBLY OCCUPANCY: 180 SF (COVERED OUTDOOR SPACE)		
OCCUPANT LOAD: (1004.5)	INDUSTRIAL AREAS: 100 SF (GROSS) PER OCCUPANT 277 SF / 100 SF/OCC = 3 OCCUPANTS UNCONCENTRATED ASSEMBLY: 15 SF (NET) PER OCCUPANT 180 SF / 15 SF/OCC = 12 OCCUPANTS TOTAL OCCUPANTS: 15		
OUTDOOR AREAS: (1004.7)	YARDS, COURTS AND OTHER USEABLE OUTDOOR AREAS TO BE PROVIDED WITH A CODE COMPLIANT MEANS OF EGRESS		
MEANS OF EGRESS WIDTH: (1005.3.2)	EXIT COMPONENTS: 0.2 INCHES PER OCCUPANT 15 OCCUPANTS X 0.2 INCHES= 3' REQUIRED		
NUMBER OF EXITS: SECTION 1016	NUMBER OF REQUIRED EXITS:		
	FLOOR	OCCUPANTS	EXITS REQUIRED	EXITS PROVIDED
	FLOOR 1 - GROUP A	12 OCCUPANTS	1	OPEN ON ALL SIDES
	FLOOR 1 - GROUP U	3 OCCUPANTS	1	3 (1 FROM EACH SPACE)
EXIT ACCESS TRAVEL DISTANCE: SECTION 1017	TRAVEL DISTANCE:			
	GROUP	MAX. DISTANCE ALLOWED		MAX. DISTANCE PROVIDED
	A	200 FEET (NON-SPRINKLERED)		~6 FEET
	U	300 FEET (NON-SPRINKLERED)		<3 FEET

PLUMBING FIXTURE COUNT REQUIREMENTS

PLUMBING FIXTURE REQUIREMENTS: TABLE 2902.1	TOTAL OCCUPANT LOAD: 15 OCC. (8 MALE, 8 FEMALE) WATER CLOSETS REQUIRED (ASSEMBLY): MALE: 1 PER 75 OCC FOR FIRST 1500 OCC . FEMALE: 1 PER 40 OCC FOR FIRST 1520 OCC LAVATORIES REQUIRED: MALE:1 PER 200 OCC. FEMALE:1 PER 150 OCC DRINKING FOUNTAINS REQUIRED: 1 PER FLOOR		
		MALE	FEMALE
	WATER CLOSETS:	REQUIRED: 1, PROVIDED: 2*	REQUIRED: 1, PROVIDED: 2*
	LAVATORIES:	REQUIRED: 1, PROVIDED: 2	REQUIRED: 1, PROVIDED: 2
	DRINKING FOUNTAINS:	REQUIRED: 1, PROVIDED: 1 -- SEE LANDSCAPE SHEET L2.11	
	* ALL RESTROOMS DESIGNED AS ALL-GENDER, SINGLE-USER RESTROOMS		

CODE INFORMATION - TRELLIS

GOVERNING CODES

BUILDING CODE EDITION:	2019 OREGON STRUCTURAL SPECIALTY CODE 2019 OREGON MECHANICAL SPECIALTY CODE 2017 OREGON PLUMBING SPECIALTY CODE 2017 OREGON ELECTRICAL SPECIALTY CODE 2019 OREGON ZERO ENERGY READY COMMERCIAL CODE 2014 OREGON FIRE CODE

BUILDING CONSTRUCTION AND AREA DATA

CONSTRUCTION TYPE: (SECTION 601)	TYPE V-B, (NON-COMBUSTIBLE, NON-RATED) CONCRETE EXTERIOR WALLS, STEEL FRAME, CONCRETE FLOORS, METAL ROOF			
ALLOWABLE HEIGHT & BUILDING AREA: (504.3, 504.4, 506.2)	GROUP	BASIC ALLOWABLE AREA (SF)	BASIC ALLOWABLE HEIGHT (STORIES)	BASIC ALLOWABLE HEIGHT (FEET)
	A	6,000 SF PER STORY	1 STORIES	40 FEET
HEIGHT MODIFICATIONS:	NONE REQUIRED			
AREA MODIFICATIONS:	NONE REQUIRED			
BASEMENT REQUIREMENTS	NO BASEMENT IN THIS BUILDING			
FIRE SUPPRESSION SYSTEM	NONE REQUIRED, NONE PROPOSED			
PROPOSED HEIGHT	10'-0"			
PROPOSED AREA	703 SF			

BUILDING OCCUPANCY DATA

OCCUPANCY GROUPS:		GROUP	CODE DESCRIPTION
FIRST FLOOR:	ASSEMBLY	A-3	ASSEMBLY USE INTENDED FOR RECREATION AND OTHER ASSEMBLY USES NOT CLASSIFIED ELSE-WHERE IN GROUP A
OCCUPANT LOAD: (1004.5)	703 SF (UNCONCENTRATED ASSEMBLY 15 SF (NET) PER OCCUPANT TOTAL OCCUPANTS: 47		
OUTDOOR AREAS: (1004.7)	YARDS, COURTS AND OTHER USEABLE OUTDOOR AREAS TO BE PROVIDED WITH A CODE COMPLIANT MEANS OF EGRESS		

BUILDING EXITING

MEANS OF EGRESS WIDTH: (1005.3.2)	EXIT COMPONENTS: 0.2 INCHES PER OCCUPANT 47 OCCUPANTS X 0.2 INCHES= 9.4" REQUIRED			
NUMBER OF EXITS: SECTION 1006	NUMBER OF REQUIRED EXITS:			
	FLOOR	OCCUPANTS	EXITS REQUIRED	EXITS PROVIDED
	FLOOR 1 - GROUP A	67 OCCUPANTS	2	NOT ENCLOSED
EXIT ACCESS TRAVEL DISTANCE: SECTION 1017	TRAVEL DISTANCE:			
	GROUP	MAX. DISTANCE ALLOWED		MAX. DISTANCE PROVIDED
	A	200 FEET (NON-SPRINKLERED)		6 FEET

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DATE: 06/16/2022 SCALE: AS NOTED DRAWN BY: TF

REVISIONS

DATE	DESCRIPTION	BY

GENERAL INFORMATION

A0.01

DRAWING SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

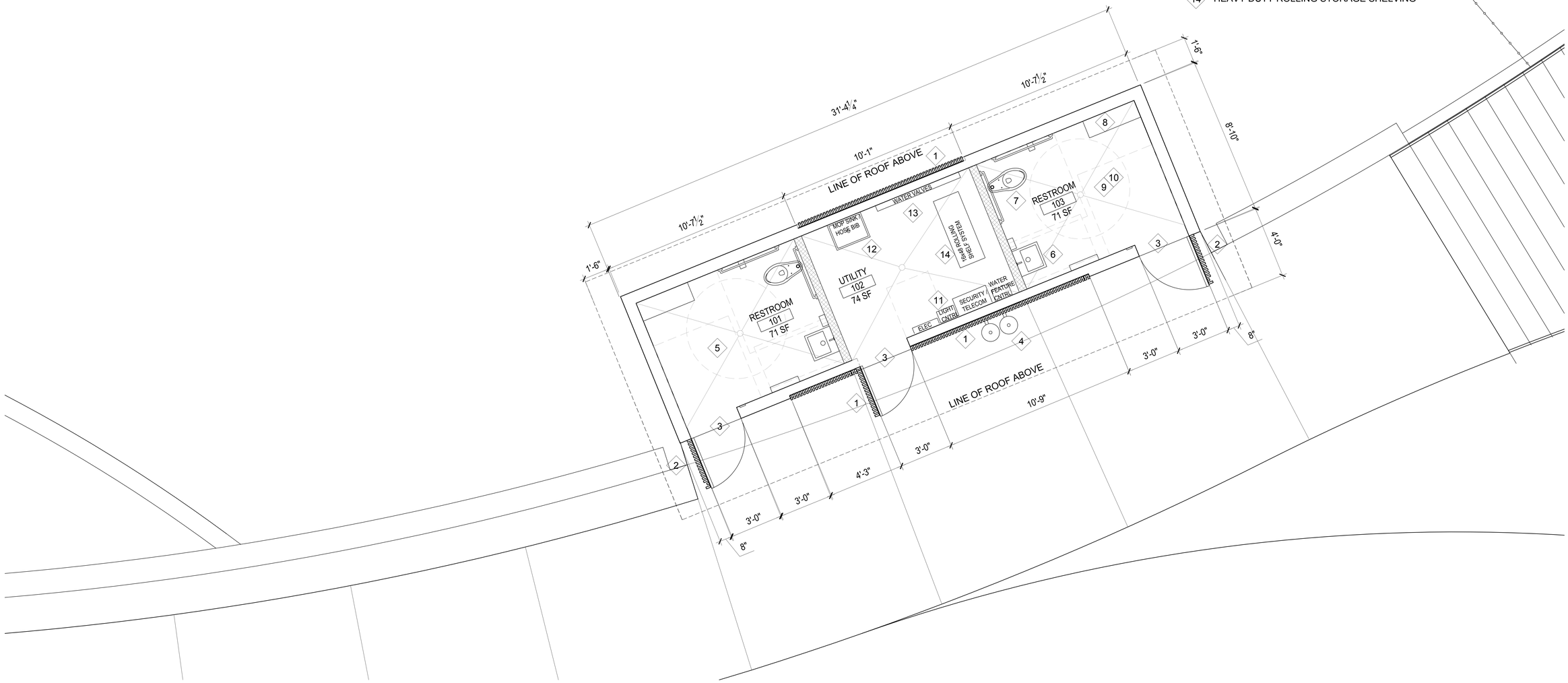
DO NOT SCALE DRAWINGS

WALL KEY

- C-1: CAST IN PLACE BOARDFORMED CONCRETE
- CMU-1: CONCRETE MASONRY UNITS

KEYNOTES

1. 1 1/4" X 3" CEDAR SLATS 2 1/4" OC PANELIZED ONTO 1" X 1/4" POWDER COATED STEEL STRAPS AT BACK FACE AT TOP, BOTTOM AND EVERY 36" VERTICALLY (SEE ELEVATION)
2. EDGE OF LANDSCAPE WALL (PER LANDSCAPE ARCHITECT) TO ALIGN WITH EDGE OF RESTROOM PAVILION
3. FLAT PANEL STEEL DOOR WITH AUTOLOCK SYSTEM, CLAD EXTERIOR FACE W/ CEDAR SLAT ASSEMBLY PANELS.
4. DRINKING FOUNTAIN
5. TOILET ROOMS ARE SIMILAR
6. ADA LAVATORY SINK AND FAUCET
7. ADA WALL MOUNTED TOILET
8. WALL MOUNTED CHANGING BENCH
9. FLOOR DRAIN, SLOPE CONCRETE FLOOR ACCORDINGLY
10. ROOM TO RECEIVE ADA GRAB BARS, TP HOLDER, HAND DRYING STATION AND REFUSE BIN
11. ELECTRICAL PANEL, LIGHTING CONTROL, AUTOLOCK SECURITY SYSTEM CONTROL, DATA/TELECOM PANELS PER MEP
12. MOP SINK EQUIPPED WITH HOSE BIB
13. FOUNTAIN CONTROL VALVES
14. HEAVY DUTY ROLLING STORAGE SHELVING



01 RESTROOM PAVILION FLOOR PLAN

1/4"=1'-0"

NOT FOR CONSTRUCTION

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RESTROOM PAVILION FLOOR PLAN

A1.01

ONE INCH
DRAWING SET SCALE:
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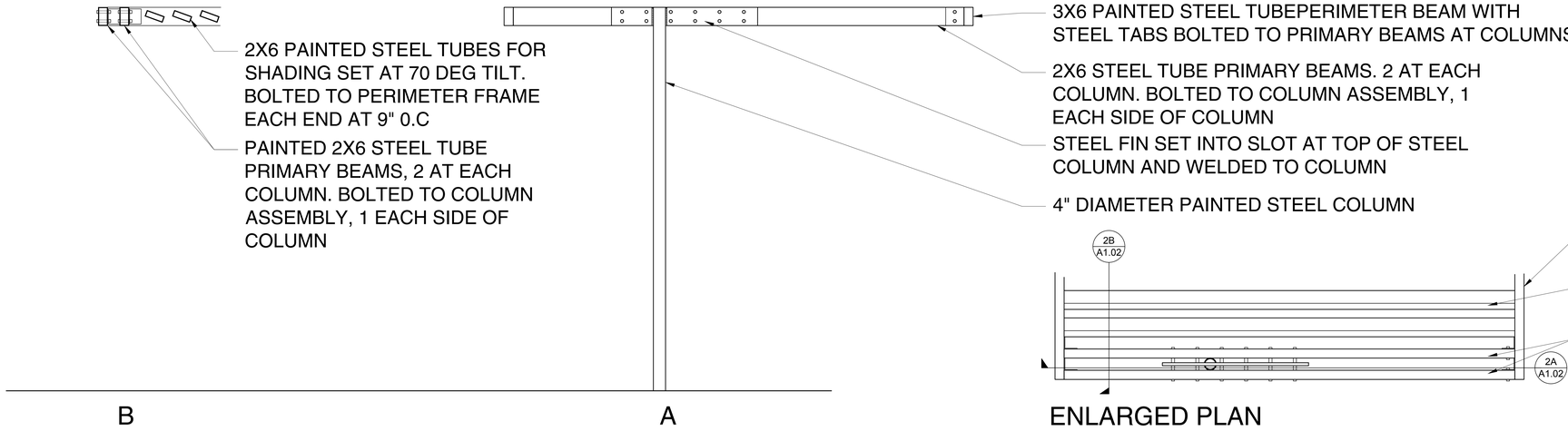
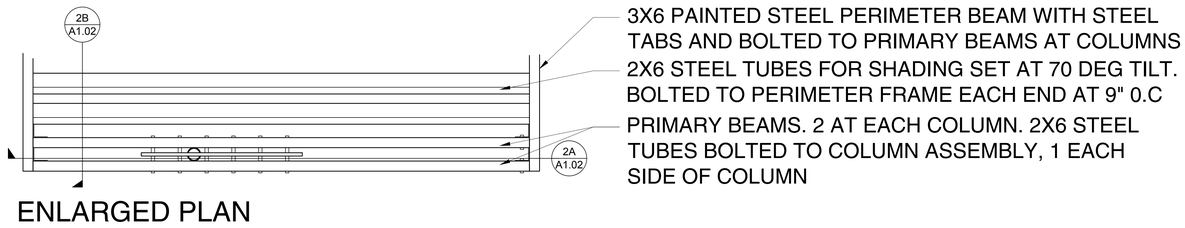
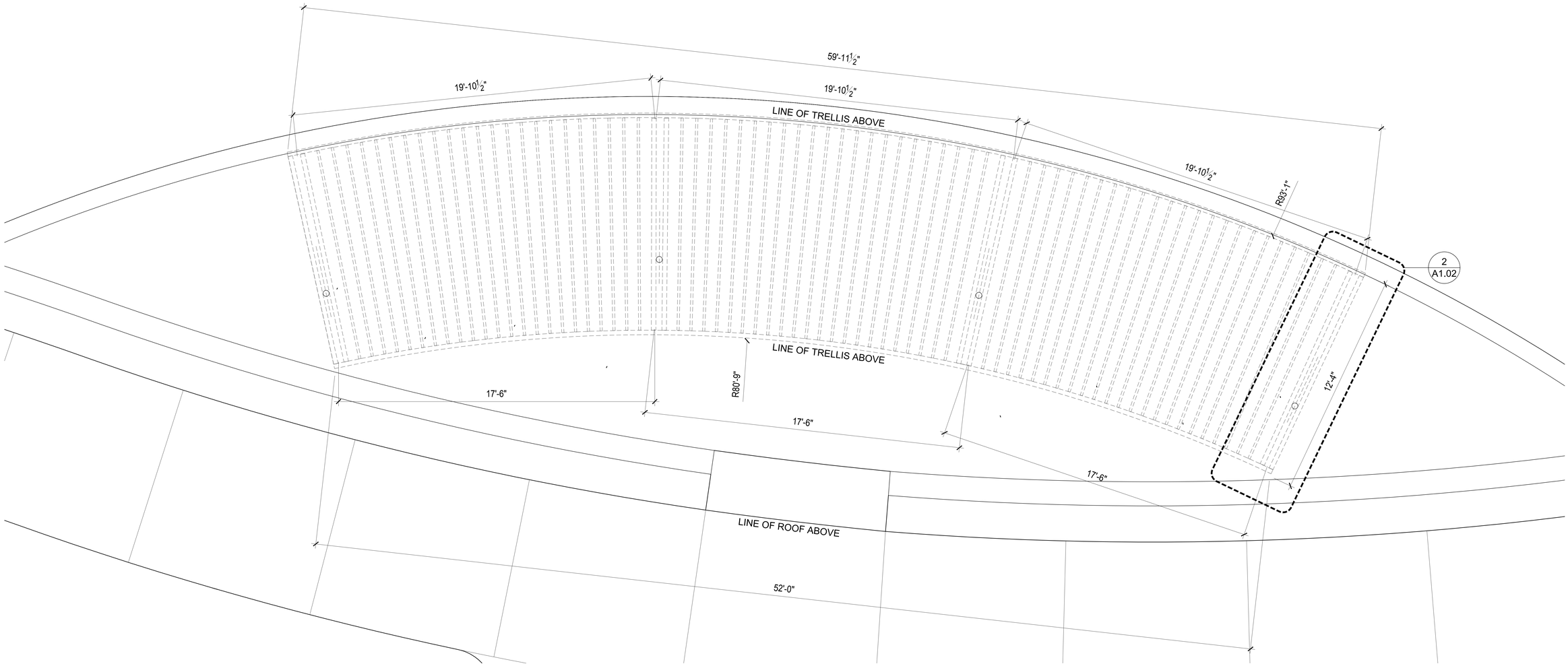




ENLARGED PLAN

02 ENLARGED TRELLIS PLAN / SECTION ASSEMBLY DIAGRAMS

3/4"=1'-0"



01 TRELLIS FLOOR PLAN

1/4"=1'-0"

NOT FOR CONSTRUCTION

ONE INCH
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TRELLIS PLAN

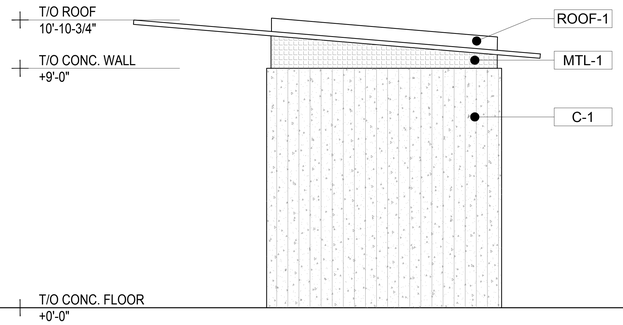
A1.02

ELEVATION MATERIAL KEY

- C-1: CAST IN PLACE BOARDFORMED CONCRETE
- WD-1: CEDAR 1-1/4" X 3" SLATS ON STEEL BATTENS ATTCHED TO CONC. WALL 65% OF STREETFACING FACADE
- MTL-1: POWDER COATED PERFORATED $\frac{1}{8}$" THICK STEEL OR ALUMINUM
- MTL-2: POWDER COATED STEEL OR ALUMINUM PER STRUCTURAL
- ROOF-1: POWDER COATED METAL PER STRUCTURAL
- ROOF-2: POWDER COATED STEEL OR ALUMINUM STRUCTURAL MEMBERS

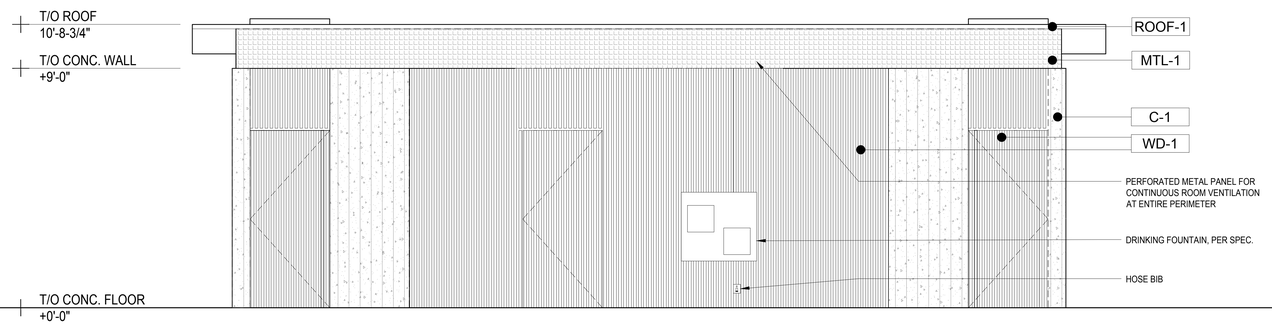
STREET FACING FACADE MATERIAL CALCULATION PER MMC 19.508D

TOTAL SQUARE FOOTAGE OF ELEVATION:	328 SQ.FT.
TOTAL SQUARE FOOTAGE OF PRIMARY MATERIALS (WOOD):	216 SQ.FT. = 66% (MIN. OF 65% REQUIRED)
TOTAL SQUARE FOOTAGE OF SECONDARY MATERIALS (BOARDFORMED CONCRETE, PNTD METAL):	112 SQ.FT. = 34%



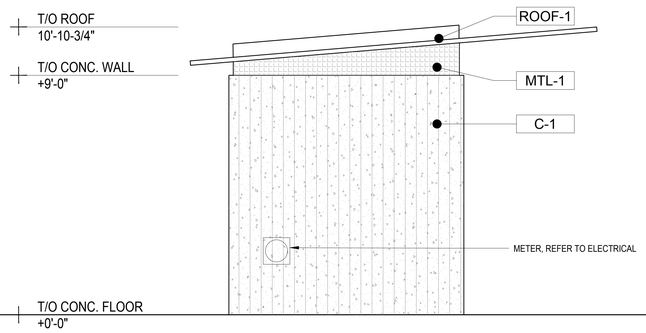
1 NORTH ELEVATION

1/4"=1'-0"



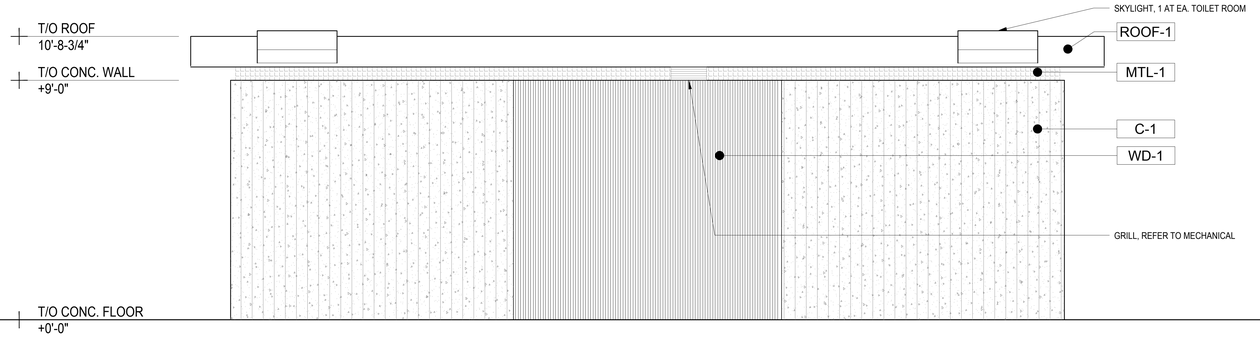
2 EAST ELEVATION

1/4"=1'-0"



3 SOUTH ELEVATION

1/4"=1'-0"



4 WEST ELEVATION

1/4"=1'-0"

NOT FOR CONSTRUCTION

ONE INCH
DRAWING SET SCALE:
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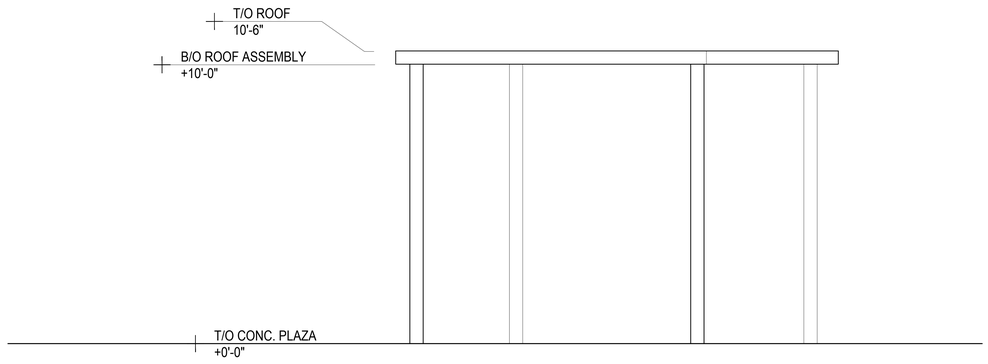
RESTROOM PAVILION ELEVATIONS

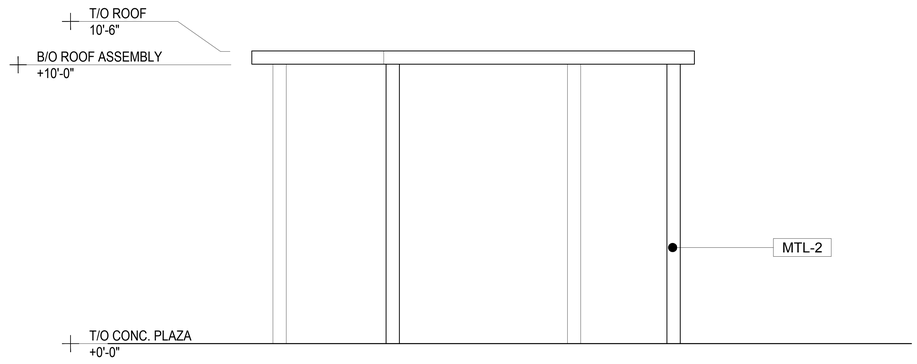
A3.01

ELEVATION MATERIAL KEY

- C-1: CAST IN PLACE BOARDFORMED CONCRETE
- WD-1: CEDAR 1-1/4" X 3" SLATS ON STEEL BATTENS ATTCHED TO CONC. WALL 65% OF STREETFACING FACADE
- MTL-1: POWDER COATED PERFORATED $\frac{1}{8}$" THICK STEEL OR ALUMINUM
- MTL-2: POWDER COATED STEEL OR ALUMINUM PER STRUCTURAL
- ROOF-1: POWDER COATED METAL PER STRUCTURAL
- ROOF-2: POWDER COATED STEEL OR ALUMINUM STRUCTURAL MEMBERS

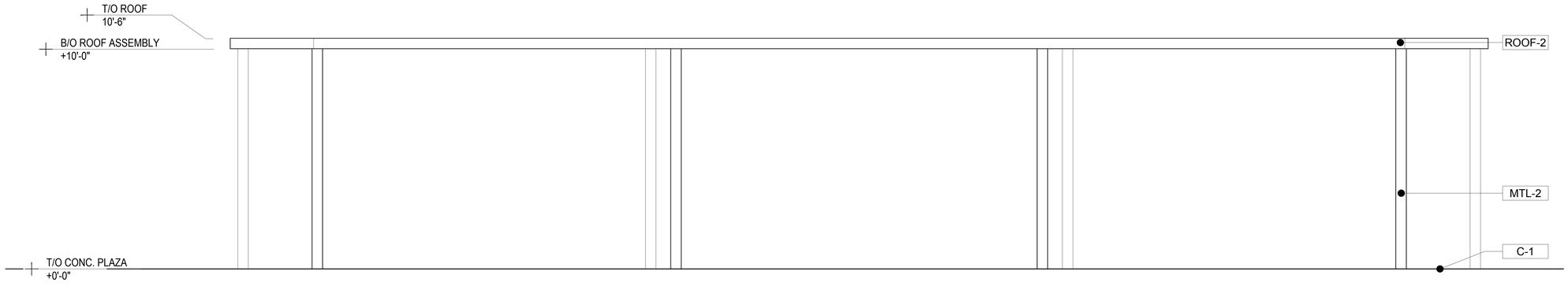


1 NORTH ELEVATION
1/4"=1'-0"



3 SOUTH ELEVATION
1/4"=1'-0"

2 EAST ELEVATION
1/4"=1'-0"



4 WEST ELEVATION
1/4"=1'-0"

NOT FOR CONSTRUCTION

ONE INCH | DRAWING SET SCALE:
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TRELLIS ELEVATIONS

A3.02

ABBREVIATIONS

A	AMPERE, AMP
AC	ALTERNATING CURRENT
AF	AMP FRAME
AFCI	ARC–FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ALC	AUTOMATIC LIGHTING CONTROL
ARCH	ARCHITECT, ARCHITECTURAL
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
C	CONDUIT, CONTROL, CONTINUOUS
CAT	CATALOG
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CO	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
D, DISC	DISCONNECT
DB	DIRECT BURIED
DC	DIRECT CURRENT
DED	DEDICATED
DIV	DIVISION
DN	DOWN
DWG	DRAWING
DTL	DETAIL
(E)	EXISTING, EXISTING TO REMAIN
E	EMERGENCY, WIRED ON EMERGENCY CIRCUIT
EA	EACH
EF	EXHAUST FAN
EL	ELEVATION, ELEVATOR
ELECT	ELECTRIC(AL)
EMT	ELECTRIC METALLIC TUBING
EQUIP	EQUIPMENT
EXT	EXTERIOR
(F)	FUTURE
F	FUSE
FBO	FURNISHED BY OTHERS
FDR	FEEDER
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLR	FLOOR
FMC	FLEXIBLE METALLIC CONDUIT
FNC	FLEXIBLE NON–METALLIC CONDUIT
FURN	FURNITURE
G, GND	GROUND, GROUNDED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFCI	GROUND FAULT CURRENT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
GRS	GALVANIZED RIGID STEEL (CONDUIT)
HH	HANDHOLE
HT, HGT	HEIGHT
HV	HIGH VOLTAGE
Hz	HERTZ (CYCLE) PER SECOND
IG	ISOLATED GROUND
IMC	INTERMEDIATE METAL CONDUIT
INC	INTERMEDIATE NON–METTALIC CONDUIT
INT	INTERIOR
J, JB	JUNCTION BOX
KAIC	THOUSAND AMPERE INTERRUPTING CAPACITY
KCMIL	THOUSAND CIRCULAR MILS
K/O	KNOCK–OUT
KVA	KILOVOLT AMPERE
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
LCP	LIGHTING CONTROL PANEL
LFMC	LIQUIDTIGHT FLEX METAL CONDUIT
LFNC	LIQUIDTIGHT FLEX NONMETAL CONDUIT
LP	LIGHTING PANEL(BOARD)
LTG	LIGHTING
LV	LOW VOLTAGE
MAU	MAKE–UP AIR UNIT
MAX	MAXIMUM
MB	METER BASE
MC	METAL CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
(N)	NEW
N, NEUT	NEUTRAL
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NF	NON–FUSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NMC	NON–METALLIC SHEATHED CABLE
NTS	NOT TO SCALE
#	NUMBER
OP	OVERHEAD POWER
OT	OVERHEAD TELCO
P	POLE
PB	PULL BOX, PUSHBUTTON
PC	PHOTOCELL, PLUMBING SYSTEM CONTRACTOR
PH, ø	PHASE
PNL	PANEL(BOARD)
PRI	PRIMARY
PSI	PRESSURE, POUNDS PER SQUARE–INCH
PV	PULL VAULT
PVC	POLYVINYL CHLORIDE CONDUIT
PWR	POWER
RCPT	RECEPTACLE
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RMC	RIGID METALLIC CONDUIT
RNC	RIGID NON–METALLIC CONDUIT
RSC	RIGID STEEL CONDUIT
RSC	RIGID STEEL CONDUIT
SCH	SCHEDULE
SEC	SECONDARY
SIM	SIMILAR
SN, S/N	SOLID NEUTRAL
SP	SPARE
SUSP	SUSPENDED
SWGR	SWITCHGEAR
TEL	TELEPHONE
TEMP	TEMPORARY
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESOR
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTL	UTILITY
V	VOLT
VA	VOLT–AMPERE
W	WATT, WIRE
W/	WITH
WP	WEATHERPROOF
XFMR	TRANSFORMER
Y	WYE
+72	MOUNTING UNITS TO CENTERLINE 72–INCHES ABOVE FINISHED FLOOR OR GRADE

RACEWAYS

- CONDUIT – CONCEALED IN CONSTRUCTION IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS
- CONDUIT – CONCEALED IN, UNDER FLOOR SLAB OR BELOW GRADE
- CONDUIT – FLEXIBLE
- CIRCUIT TYPE AS INDICATED:
  "P" = OVERHEAD POWER
  "T" = OVERHEAD TELCO
  "B" = BROADBAND
- HOME RUN. HASH MARKS INDICATE (2) #12 WIRE UNLESS NOTED OTHERWISE
- CONDUCTORS IN CONDUIT, (2) #12 OR AS NOTED (QUANTITY AS INDICATED BY HASH MARKS)
- GROUND WIRE

NOTES:
1. RUNS MARKED WITH CROSS–HATCHES INDICATE QUANTITY OF #12 WIRE. LARGER GAUGES ARE SHOWN OR NOTED ELSEWHERE. LONG PERPENDICULAR CROSS–HATCH INDICATES NEUTRAL, REVERSE SLANT OR LONG CROSS–HATCH WITH DOT INDICATES GREEN GROUND WIRE.
2. FOR UNMARKED CONDUIT RUNS, CONTRACTOR SHALL INSTALL REQUIRED NUMBER OF WIRES FOR POWER AND/OR CONTROL OF ELEMENTS IN CIRCUIT(S) SHOWN. SIZE OF WIRES SHALL BE #12 UON OR REQUIRED BY CODE.
3. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE.

- GROUND CONNECTION PER NEC 250

RACEWAYS - INDICATORS

- CONDUIT – STUB. TERMINATE WITH BUSHING, OR PROVIDE CAP IF UNDERGROUND
- CONDUIT – STUB–UP

MISCELLANEOUS

- SPECIAL PURPOSE CONNECTION
- JUNCTION BOX – CEILING MOUNTED, UON
- JUNCTION BOX – WALL–MOUNTED
- JUNCTION BOX – IN GROUND
- SHEET NOTE DESIGNATION
- REVISION DELTA
- MECHANICAL EQUIPMENT TAG NUMBER, REFER TO MECHANICAL EQUIPMENT SCHEDULE

  EQUIPMENT TAG NUMBER, REFER TO MECHANICAL EQUIPMENT SCHEDULE
  "K" = KITCHEN,
  "C" = COMPUTER
  *NOTE SYMBOL, REFER TO NOTE AS INDICATED
- GROUND BAR, LENGTH TO BE NOTED
- DETAIL HEADER
- SECTION IDENTIFIER
- DETAIL IDENTIFIER
- TRANSFORMER
- PLYWOOD BACKBOARD
- PHOTOCELL
- METER – SINGLE
- GROUND–NEUTRAL BOND STRAP

SWITCHES

- $ SINGLE–POLE
- $a SWITCH CONTROL (LOWER CASE LETTER DENOTES LUMINAIRES TO BE CONTROLLED PER CORRESPONDING LETTER NEXT TO INDIVIDUAL LUMINAIRES)
- $D DIMMER
- $LV LOW VOLTAGE
- $M MOTOR STARTER SWITCH

NOTE:
STANDARD SWITCH MOUNTING HEIGHT SHALL BE 48" AFF UON.

LUMINAIRES

- CEILING MOUNTED
- RECESSED
- BOLLARD TYPE SITE LIGHTING
- FLOOD LIGHT

MOTOR CONTROL

- DISCONNECT SWITCH, UNFUSED
  TYPE, SIZE AS INDICATED
  "xxA" = RATED AMPERAGE
- DISCONNECT SWITCH, FUSED
  TYPE, SIZE AS INDICATED
  "xxA" = RATED AMPERAGE
- MOLDED CASE CIRCUIT BREAKER (THERMAL–MAGNETIC)
  SIZE AS INDICATED
  "xxAF" = FRAME SIZE
  "xxAT" = TRIP SIZE
- FUSE, SIZE AS INDICATED
- MAGNETIC MOTOR STARTER
  STARTER SIZE AS INDICATED
- COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH, STARTER SIZE AND FUSE RATING AS INDICATED

GENERAL NOTES

A. NOT ALL ABBREVIATIONS ARE USED. ABBREVIATIONS LISTED APPLY TO ELECTRICAL DRAWINGS AND DETAILS.

B. COMMON NON–ELECTRICAL ABBREVIATIONS SUCH AS COMPASS DIRECTIONS (N, S, E, W, ETC.) AND CHEMICAL COMPOUNDS (02, CL2, ETC.) ARE NOT INCLUDED.

NOT FOR CONSTRUCTION

ONE INCH
IF THIS BAR DOES NOT MEASURE 1–INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
[DRAWING: 577.57.25]

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Beaverton, Oregon 97005
Phone: (503) 726-3317
Fax: (503) 726-3326
E-mail: rweng@rweng.com
Project No.: 1170.010.001
Contact: DENNIS HALL

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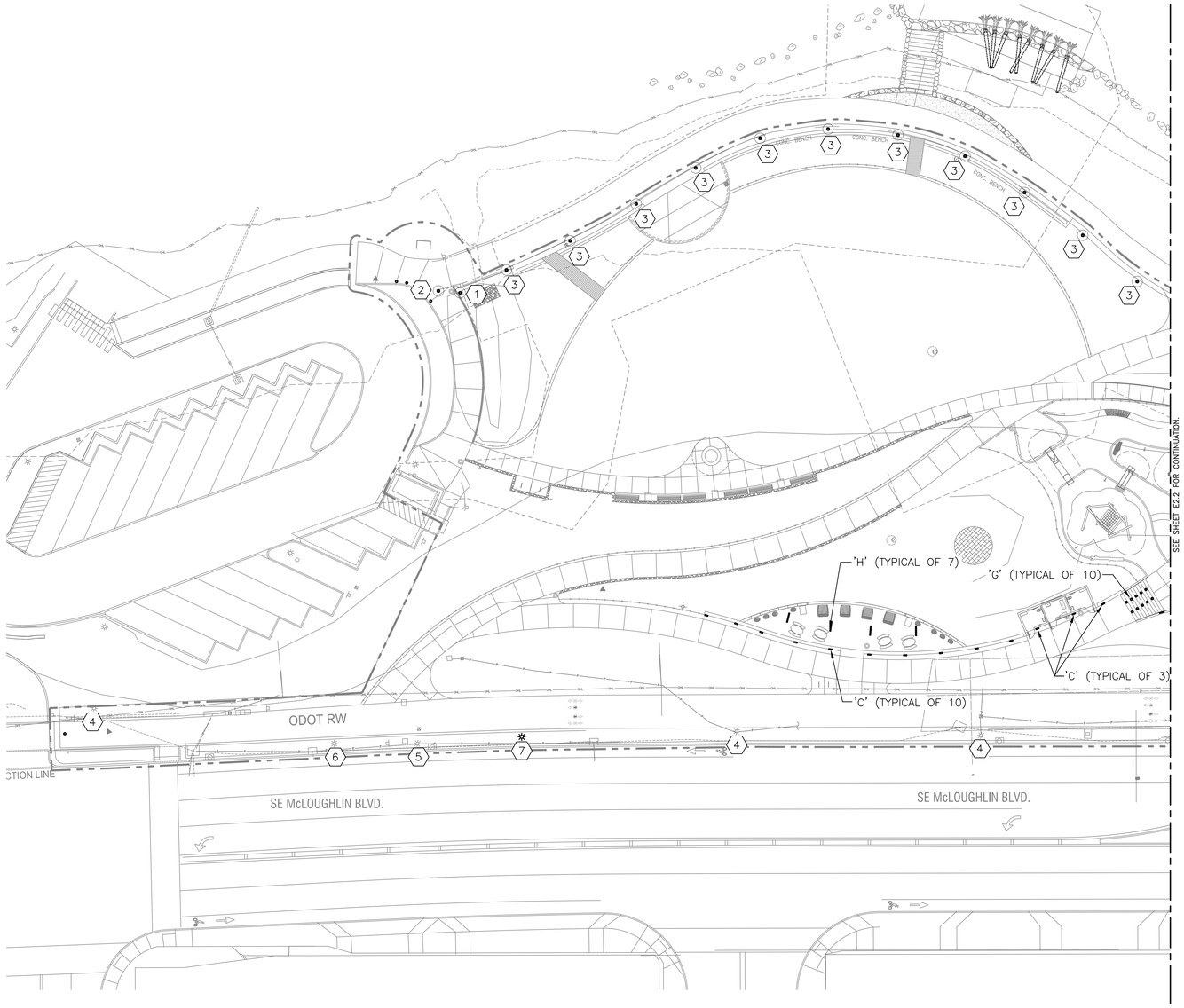
LEGEND & ABBREVIATIONS

E0.01



1 / E2.1 PARTIAL SITE PLAN - LIGHTING
SCALE: 1" = 20'-0"

GENERAL NOTES

A. SEE DRAWING E0.1 FOR SYMBOL LEGEND.

B. SEE DRAWING E2.3 AND E2.4 FOR SITE PLAN PHOTOMETRIC.

C. SEE DRAWING E4.1 FOR LUMINAIRE SCHEDULE.

D. COORDINATE ALL ELECTRICAL WORK WITH OTHER DISCIPLINES.

E. FIELD COORDINATE ALL EQUIPMENT LOCATIONS SHOWN ON PLANS TO AVOID CONFLICTS. COORDINATE WITH LANDSCAPE ARCHITECT AND ENGINEER AS NEEDED.

NOTES THIS SHEET

1. REINSTALL STORED TYPE 'A' LUMINAIRE. SEE DETAIL 4/E3.1 FOR INSTALLATION.
2. REMOVE EXISTING LUMINAIRE AND STORE FOR REINSTALLATION. COODINATE STOCKYARD LOCATION WITH CITY OF MILWAUKIE REPRESENTATIVE. VERIFY THAT BOLLARD IS SERVICEABLE PRIOR TO START OF WORK.
3. EXISTING TYPE 'A' LUMINAIRE TO REMAIN.
4. EXISTING POST TOP LUMINAIRE TO REMAIN.
5. POST TOP LIGHTING POLE TO BE RELOCATED NEAR EAST SIDE OF PATH. SEE KEY NOTE 6.
6. NEW LOCATION OF RELOCATED POST TOP.
7. NEW POST TOP LIGHT. MATCH EXISTING.

NOT FOR CONSTRUCTION

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Project No.: 1170.010.001
Contact: DENNIS HALL

MILWAUKIE BAY PARK

100% Design Development

11211 SE McLoughlin Blvd, Milwaukie, OR 97222

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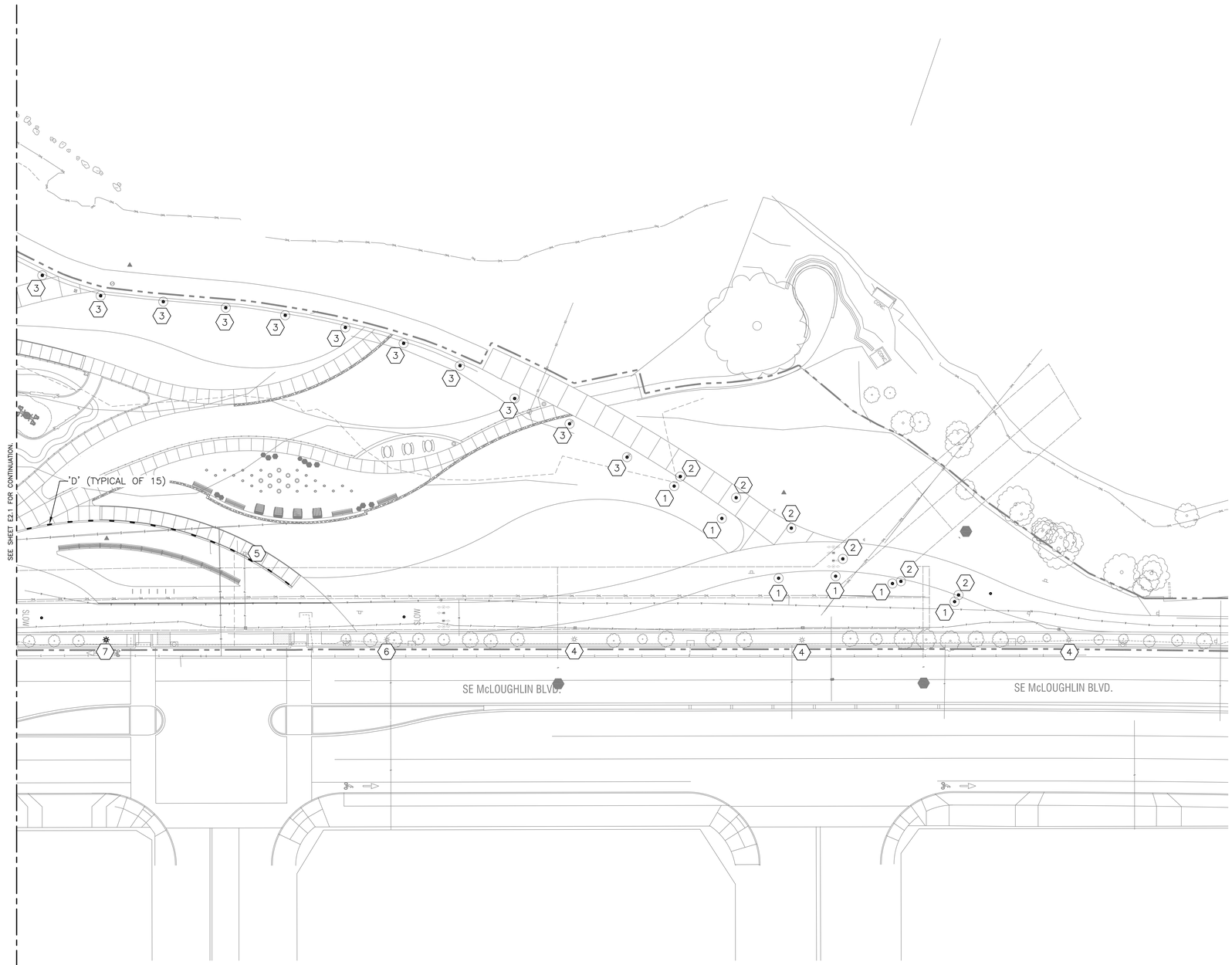
DATE	DESCRIPTION	BY

PARTIAL SITE PLAN LIGHTING

E2.1



1 E2.2 PARTIAL SITE PLAN - LIGHTING
SCALE: 1" = 20'-0"

GENERAL NOTES

A. SEE DRAWING E0.1 FOR SYMBOL LEGEND.

B. SEE DRAWING E2.3 AND E2.4 FOR SITE PLAN PHOTOMETRIC.

C. SEE DRAWING E4.1 FOR LUMINAIRE SCHEDULE.

D. COORDINATE ALL ELECTRICAL WORK WITH OTHER DISCIPLINES.

E. FIELD COORDINATE ALL EQUIPMENT LOCATIONS SHOWN ON PLANS TO AVOID CONFLICTS. COORDINATE WITH LANDSCAPE ARCHITECT AND ENGINEER AS NEEDED.

NOTES THIS SHEET

1. REINSTALL STORED TYPE 'A' LUMINAIRE. SEE DETAIL 4/E3.1 FOR INSTALLATION.
2. REMOVE EXISTING LUMINAIRE AND STORE FOR REINSTALLATION. COODINATE STOCKYARD LOCATION WITH CITY OF MILWAUKIE REPRESENTATIVE. VERIFY THAT BOLLARD IS SERVICEABLE PRIOR TO START OF WORK.
3. EXISTING TYPE 'A' LUMINAIRE TO REMAIN.
4. EXISTING POST TOP LUMINAIRE TO REMAIN.
5. POST TOP LIGHTING POLE TO BE RELOCATED NEAR EAST SIDE OF PATH. SEE KEY NOTE 6.
6. NEW LOCATION OF RELOCATED POST TOP.
7. NEW POST TOP LIGHT. MATCH EXISTING.

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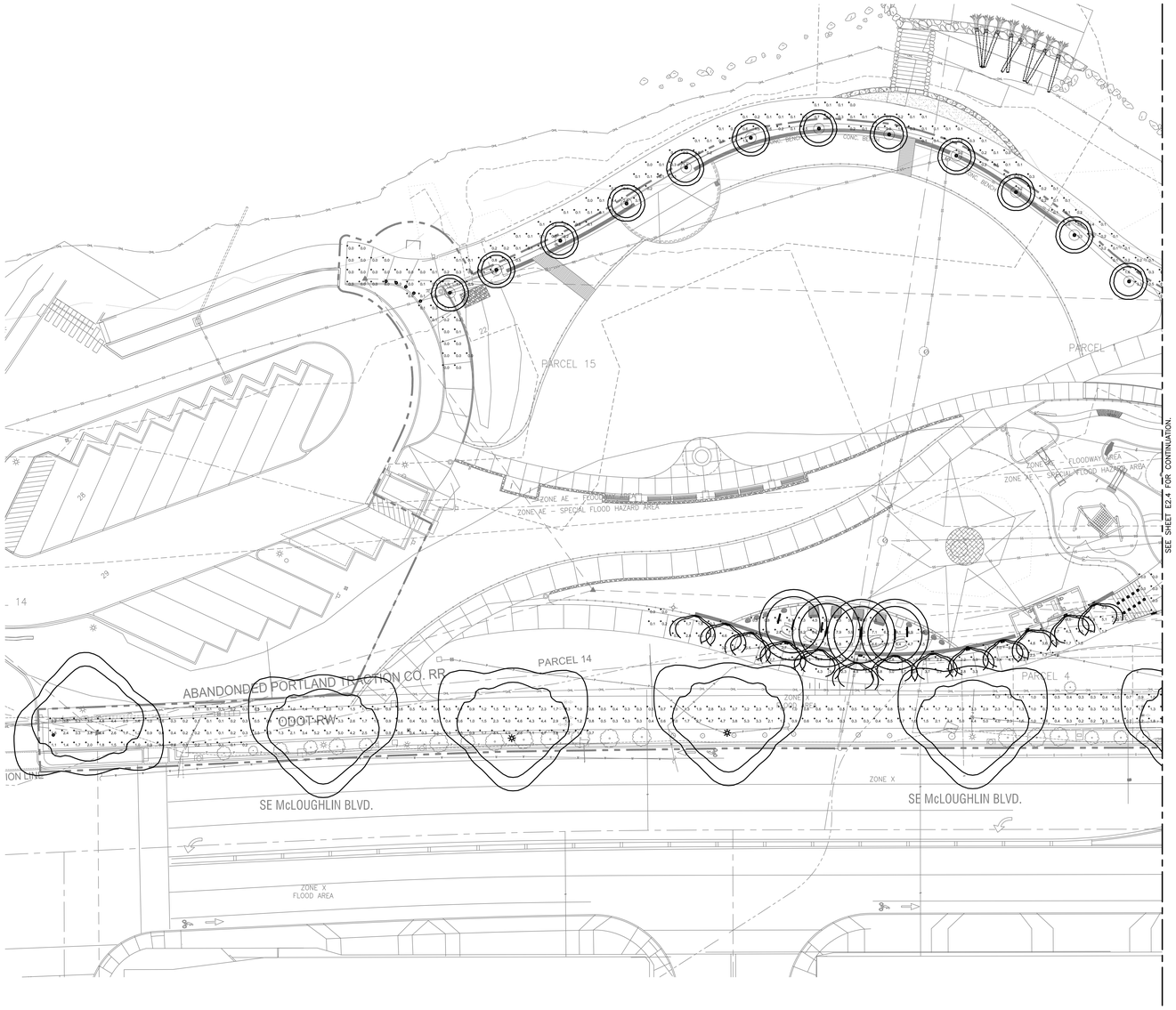
PARTIAL SITE PLAN LIGHTING

E2.2

ONE INCH
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
IDRAWING SET SCALE



1 / E2.3 PARTIAL SITE PLAN - PHOTOMETRIC
SCALE: 1" = 20'-0"

GENERAL NOTES

A. SEE DRAWING E0.1 FOR SYMBOL LEGEND.

B. SEE DRAWING E2.1 AND E2.2 FOR SITE PLAN LIGHTING.

B. INNER LUMINAIRE ISO CURVE INDICATES 1 FOOT CANDLE. OUTER LUMINAIRE ISO CURVE INDICATES 0.5 FOOT CANDLES.

C. FOOT CANDLE ISO CURVES ARE SHOWN AS A SINGLE FIXTURE CONTRIBUTION WITH SET VALUES. THE ISO CURVE VALUES MAY NOT MATCH THE CALCULATION PLANE POINT VALUES, SINCE THE CALCULATION PLANE CAN BE A CONTRIBUTION FROM MORE THAN ONE LUMINAIRE.

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EXPIRES: 12/31/2022

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DOCUMENTS

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MILWAUKIE BAY PARK

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DATE: 09/01/2022
SCALE: AS NOTED
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PARTIAL
SITE PLAN
PHOTOMETRIC

E2.3

NOT FOR CONSTRUCTION

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

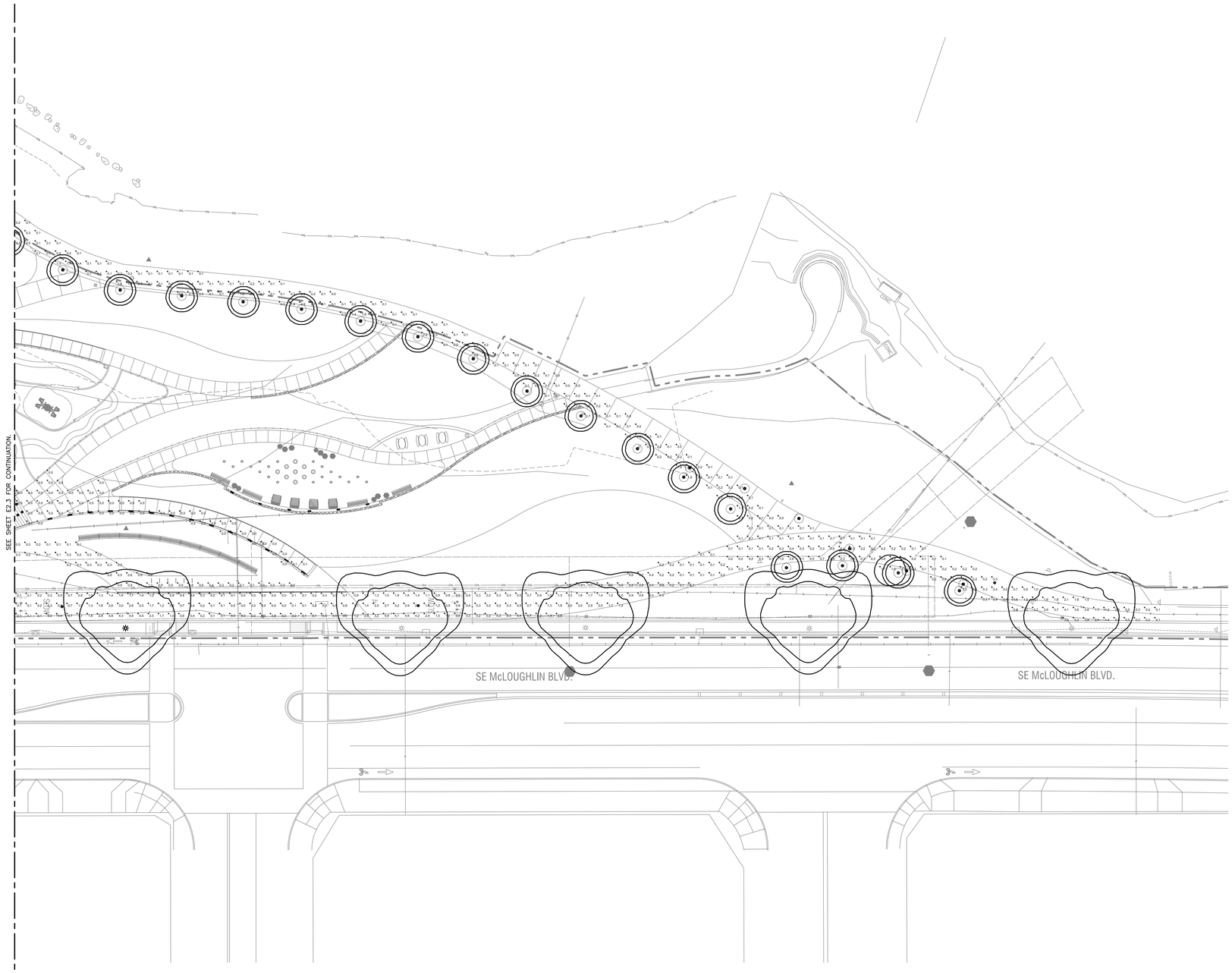
GENERAL NOTES

A. SEE DRAWING E0.1 FOR SYMBOL LEGEND.

B. SEE DRAWING E2.1 AND E2.2 FOR SITE PLAN LIGHTING.

B. INNER LUMINAIRE ISO CURVE INDICATES 1 FOOT CANDLE. OUTER LUMINAIRE ISO CURVE INDICATES 0.5 FOOT CANDLES.

C. FOOT CANDLE ISO CURVES ARE SHOWN AS A SINGLE FIXTURE CONTRIBUTION WITH SET VALUES. THE ISO CURVE VALUES MAY NOT MATCH THE CALCULATION PLANE POINT VALUES, SINCE THE CALCULATION PLANE CAN BE A CONTRIBUTION FROM MORE THAN ONE LUMINAIRE.



1 / E2.4 PARTIAL SITE PLAN - PHOTOMETRIC
SCALE: 1" = 20'-0"

NOT FOR CONSTRUCTION

ONE INCH
IF THIS BAR DOES NOT MEASURE 1 INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
DRAWING SET SCALE

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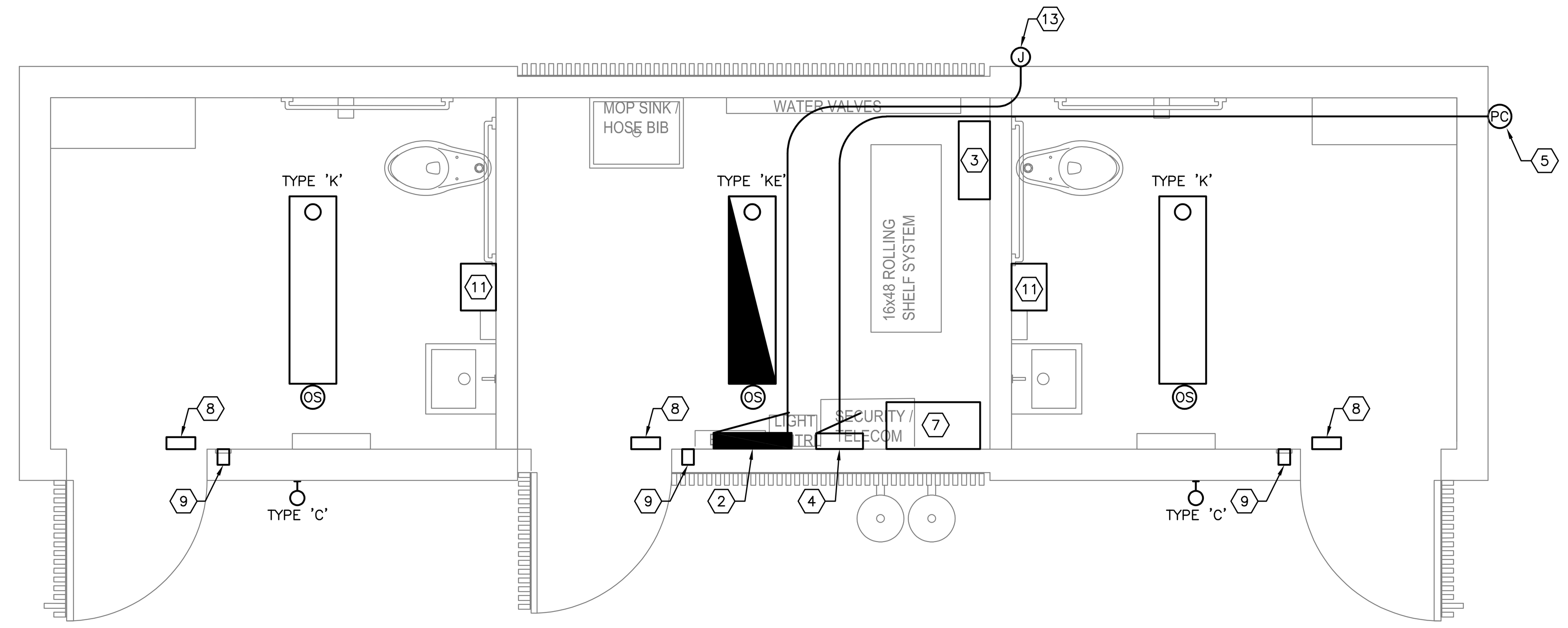
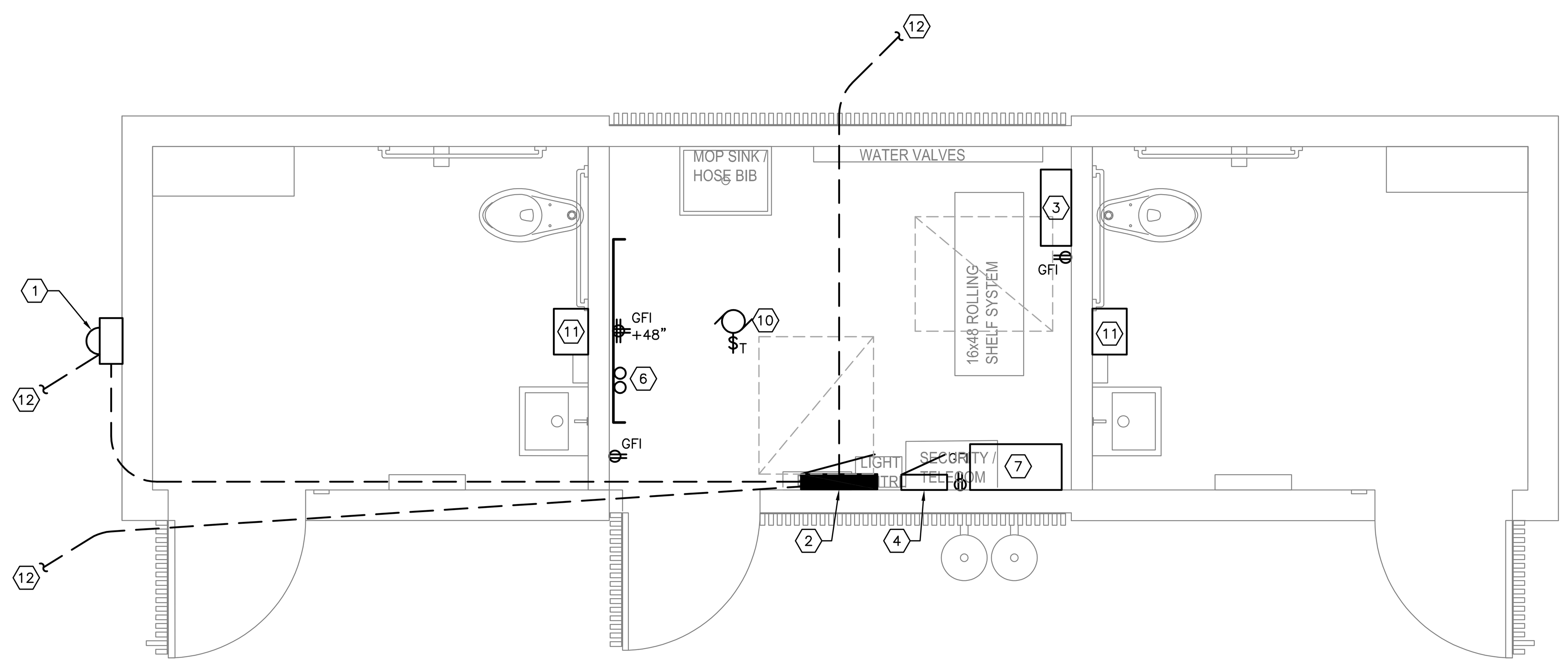
PARTIAL SITE PLAN PHOTOMETRIC

E2.4



1 E3.1 BUILDING PLAN - LIGHTING & SECURITY
SCALE: 1/2" = 1'-0"



2 E3.1 BUILDING PLAN - POWER & SIGNAL
SCALE: 1/2" = 1'-0"

NOTES THIS SHEET

1. NEW ELECTRICAL SERVICE METER BASE.
2. NEW PARK ELECTRICAL PANELBOARD, PLP.
3. WATER FEATURE CONTROL PANEL.
4. LIGHTING CONTROL PANEL.
5. LIGHTING PHOTOCELL.
6. TELCO SERVICE N.I.D.
7. SECURITY/SCADA PANEL
8. AUTOMATIC DOOR LOCKS, PROGRAMMABLE.
9. AUTOMATIC DOOR LOCK OVERRIDE EXIT CONTROL SWITCH.
10. EXHAUST FAN, SEE MECHANICAL SHEET M1.1.
11. ELECTRIC HAND DRYER.
12. SEE CIRCUIT CONTINUATION ON SHEET E1.1.
13. PROVIDE AND INSTALL NEMA 3R JUNCTION BOX UP UNDER THE ROOF EAVE FOR FUTURE POWER/LIGHTING NEEDS. COORDINATE SPECIFIC LOCATION WITH OWNERS REPRESENTATIVE.

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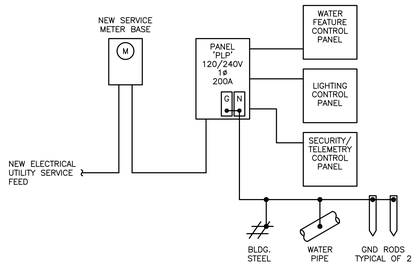
ELECTRICAL FLOOR PLAN - RESTROOM BUILDING

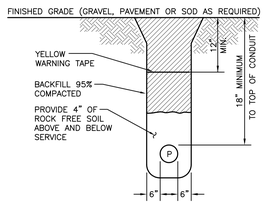
E3.1

ONE INCH | DRAWING SET SCALE: IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

NOT FOR CONSTRUCTION

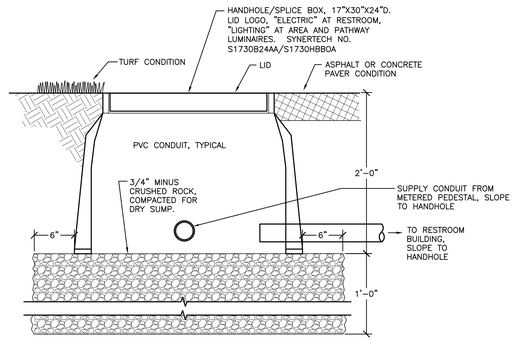


1 E4.1 NEW RESTROOM BUILDING ONE-LINE DIAGRAM
NOT TO SCALE

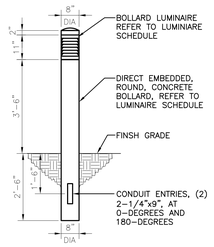


NOTE:
A. MAINTAIN 12" VERTICAL AND 24" HORIZONTAL CLEARANCE BETWEEN GAS AND OTHER UTILITIES.

2 E4.1 POWER CONDUIT TRENCH DETAIL
NOT TO SCALE



3 E4.1 FLUSH HANDHOLE/SPLICE BOX DETAIL
NOT TO SCALE



4 E4.1 BOLLARD LUMINAIRE DETAIL
SCALE: 1/2"=1'-0"

LIGHTING SCHEDULE

LUMINAIRE TYPE	DESCRIPTION	LAMP TYPE	INPUT WATTS	DRIVER/ BALLAST	COLOR TEMP	MANUFACTURER AND MODEL SERIES
'A'	BOLLARD STYLE PATHWAY LED LUMINAIRE. DIRECT EMBED SPUN-CAST CONCRETE, 8" DIAMETER EXPOSED AGGREGATE, LOUVERED LUMINAIRE WITH INTERNALLY FASTENED CAST CONCRETE DECORATIVE CAP. DIE-CAST ALUMINUM LUMINAIRE AND LOUVERS, 8" DIAMETER. LED LIGHT ENGINE, TYPE V DISTRIBUTION. CONCRETE BOLLARD, 72" OAL, 30" EMBED, 42" ABOVE GRADE. (2) 2-1/4"x9" CONDUIT ENTRIES AT 0-DEG AND 180-DEG, 18" BELOW GRADE. LUMINAIRE COLOR, SEMI-GLOSS BLACK. BOLLARD COLOR BLACK WITH GRAFFITI RESISTENT COATING.	LED	50W	ELECTRONIC DRIVER	4000K	AMERON LIGHTING: ROUND LOUVERED BOLLARD SERIES. CONCRETE BOLLARD: BER0842LC LUMINAIRE: L20RCC05LEPA ** GRAFFITI RESISTENT COATING. NOTE: CONCRETE BOLLARD TO MATCH EXISTING CONCRETE BOLLARD. CONTRACTOR TO VERIFY EXACT MANUFACTURER/MODEL WITH ASBUILTS OF EXISTING PARK CONCRETE BOLLARD.
'C'	RECESSED LED LUMINAIRE. DIE-CAST ALUMINUM MARINE GRADE HOUSING WITH CLEAR GLASS LENS, WET LOCATION, 120V AND BLACK FINISH.	LED 1,183 LUMENS	18.5W	STANDARD DRIVER	3000K	BEGA LIGHTING: 24061 SERIES, OR APPROVED.
'D'	24", INGROUND REGULAR OUTPUT LED FAÇADE LUMINAIRE.120V, VARIED LENGTH, ASSYMETRIC WALLWASH OPTIC, STAINLESS STEEL HARDWARE, AND ANTISLIP LENS. PROVIDE APPORPRIATE LENGTH OF JUMPER CABLE.	LED 2770 LUMENS	10W	STANDARD DRIVER	3000K	LUMENPULSE: LUMENFACADE INGROUND SERIES, OR APPROVED.
'F'	Designation not assigned.					
'G'	RECESSED LED STEPLIGHT. BLACK FINISH, 120V, REMOTE MOUNTED 24V ELECTRONIC DRIVER, .210" THICK TEMPERED GLASS LENS, WATERPROOF.	LED 134 LUMENS	2W	STANDARD DRIVER	3000K	BEGA LIGHTING: 33831 SERIES, OR APPROVED.
'H'	4' SURFACE MOUNTED LINEAR LED LUMINAIRE. CLEAR GLASS LENS WITH OPTIMIZED INLAY, SILVER FINISH, UNIVERSAL VOLTAGE AND TAMPER RESISTANT.	LED 513 LUMENS PER FOOT	5.1W	STANDARD DRIVER	3000K	SELUX LIGHTING – M125 SERIES OR APPROVED.
'K'	4' SURFACE MOUNTED LED LINEAR LUMINAIRE. ONE CONSTANT CURRENT LED DRIVER, DUAL VOLTAGE, 20-GA CRS PAINTED HOUSING, TAMPER RESISTANT TORX, PEARLESCENT POLYCARBONATE, MOTION SENSOR AND WHITE FINISH.	LED 4,819 LUMENS	49W	STANDARD DRIVER	3500K	KENALL LIGHTING: ES8 SERIES OR APPROVED.
'KE'	SAME AS TYPE 'K' EXCEPT EQUIPPED WITH INTEGRAL BATTERY BACKUP AND TEST SWITCH.	LED 4,819 LUMENS	49W	STANDARD DRIVER	3500K	KENALL LIGHTING: ES8 SERIES OR APPROVED.
'L'	Designation not assigned.					

NOTES:
1. CONFIRM SELECTED FINISHES WITH ARCHITECT PRIOR TO PURCHASE AND INSTALLATION.
2.

GENERAL NOTES

A. THE SERVICE AVAILABLE FAULT CURRENT AT THE METER BASE IS xxxxx PER PGE PROVIDED SERVICE DESIGN.

B. PROVIDE ELECTRICAL DISTRIBUTION EQUIPMENT RATED ABOVE THE SERVICE AVAILABLE FAULT CURRENT.

C. MAIN SERVICE DISCONNECT SHALL HAVE AVAILABLE INTERRUPTING CURRENT RATING THAT EXCEEDS THE SERVICE AVAILABLE FAULT CURRENT.

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ELECTRICAL - ONE-LINE DIAGRAM

E4.1

ONE INCH [PLUMMET SET STYLE]
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

GENERAL NOTES

A. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY DAMAGED ITEMS AND REPAIRING ANY BUILDING DAMAGE OCCURRING DURING CONSTRUCTION AT NO ADDITIONAL COST TO PROJECT. MATCH NEW ITEMS AND REPAIRS TO EXISTING CONDITIONS.

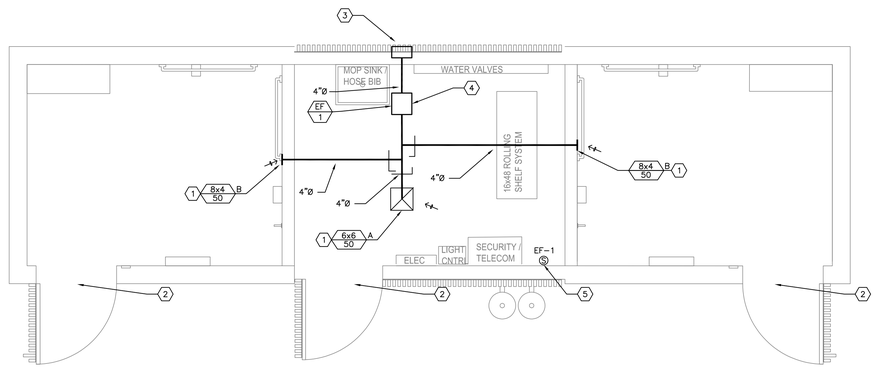
B. ALL WORK SHALL CONFORM TO APPLICABLE CODES, REGULATORY AGENCIES, AND STANDARDS, INCLUDING BUT NOT NECESSARILY LIMITED TO IBC, IMC, IPC, UFC, NEC, OSHA, NFPA, ETC. INFORM CONSTRUCTION MANAGER OF CONFLICTS PRIOR TO BID. WHERE TWO CODES OR STANDARDS DIFFER, THE MORE STRICT OF THE TWO SHALL BE FOLLOWED.

C. COORDINATE AND SCHEDULE ALL WORK WITH CONSTRUCTION MANAGER PRIOR TO START OF WORK. ALL EFFECTS OF WORK MUST BE COMMUNICATED, REVIEWED, APPROVED, AND SCHEDULED WITH CONSTRUCTION MANAGER. CONTRACTOR SHALL LIMIT NOISE, DUCT, FUMES, SHUT DOWNS, WORKING HOURS, ETC. AS REQUIRED BY CONSTRUCTION MANAGER.

D. MAINTAIN CODE REQUIRED AND MANUFACTURER RECOMMENDED CLEARANCES AROUND ALL EQUIPMENT.

E. HVAC EQUIPMENT INSIDE THE BUILDING ENVELOPE WILL NEED A MINIMUM OF R-5 INSULATION. THIS INCLUDES, BUT IS NOT LIMITED TO, EQUIPMENT, DUCTWORK, ETC.

F. ALL DIMENSIONS ARE APPROXIMATE AND MUST BE FIELD VERIFIED PRIOR TO INSTALLATION.



1 / M1.1 BUILDING PLAN - MECHANICAL
SCALE: 1/2" = 1'-0"

NOTES THIS SHEET

1. PROVIDE INDEPENDENT BACKDRAFT DAMPER FOR EACH EXHAUST DUCT RUN
2. DOOR-MOUNTED 16x6 PRICE STG INTAKE LOUVER, OR EQUIVALENT. SEE ARCHITECTURAL SHEETS FOR EXACT PLACEMENT.
3. 12" W x 10" H WEATHERPROOF EXHAUST LOUVER, DESIGN BASED ON RUSKIN MODEL ELF315 OR APPROVED EQUAL. FIELD VERIFY LOCATION AND COORDINATE WITH EXISTING CONDITIONS AND EQUIPMENT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SEE ARCHITECTURAL SHEETS FOR ADDITIONAL PLACEMENT INFORMATION.
4. EXHAUST FAN SUSPENDED FROM CEILING IN SPACE. INSTALL PER MANUFACTURER'S DIRECTIONS IN STANDARD INLINE ORIENTATION.
5. PROVIDE WALL-MOUNTED, PROGRAMMABLE THERMOSTAT. INTERLOCK WITH EXHAUST FAN EF-1. COORDINATE WITH ELECTRICAL TRADES AND VERIFY EXISTING ROOM CONDITIONS AT LOCATION SHOWN.

MECHANICAL LEGEND

DUCTWORK SINGLE LINE

RETURN/EXHAUST AIR ELBOW UP

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
(E)	EXISTING
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST AIR
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
MA	MAKE-UP AIR
MBH	1000 BTU PER HOUR
MFR	MANUFACTURER
(N)	NEW
OSA	OUTSIDE AIR
PSI	POUNDS PER SQUARE INCH
RA	RETURN AIR
SA	SUPPLY AIR

REFERENCE

- CONNECT TO EXISTING AT THIS POINT. VERIFY LOCATION, SIZE, AND CONDITION.
- 1 — SHEET NOTE
- VAV 1 — EQUIPMENT MARK NUMBER SEE SCHEDULES
- 1 — REVISION
- 20x10 A 500 OBD — DIFFUSER/REGISTER MARK NUMBER
  - NECK SIZE
  - CFM
  - SCHEDULED TYPE
  - OPPOSED BLADE DAMPER

NOTE: NOT ALL SYMBOLS OR ABBREVIATIONS CONTAINED IN THIS LEGEND WILL APPEAR ON DRAWINGS.

OUTSIDE AIR VENTILATION SCHEDULE

2019 OSMC Table 403.3.3.1.1

	Application	Cond. Area (SF)	Default Occ. Density # per 1000 SF	Occ. Load	Actual No.of Occ.or No. of Fixtures	CFM per Occ. or Fixture	People or Fixture Outdoor Airflow (CFM)	Area Outdoor Airflow (CFM/SF)	Area Outdoor Airflow (CFM)	Exhaust Airflow Rate (CFM/SF)	Exhaust Airflow Rate (CFM/FX)	Req'd Exhaust (CFM)	Req'd OSA (CFM)
EF-1	Restroom, Public	75	–	–	2	–	–	–	–	–	50	100	–
											TOTAL REQ'D OSA CFM		–
											TOTAL REQ'D OSA CFM IN BREATHING ZONE		–
											TOTAL REQ'D EXHAUST CFM		100
											TOTAL PROVIDED OSA CFM		-
											DCV MINIMUM OSA CFM		-
											TOTAL PROVIDED EXHAUST CFM		150

DIFFUSER, REGISTER, AND GRILLE SCHEDULE

TYPE	DESCRIPTION	MFR/MODEL	OBD	NOTES
A	RETURN GRILLE	PRICE / 10		DUCT-MOUNTED
B	RETURN GRILLE – SIDEWALL	PRICE / 90		

EXHAUST FAN SCHEDULE

MARK NUMBER	EF 1 (1)(2)
SYSTEM	RESTROOMS
TYPE	INLINE
AIRFLOW (CFM)	150
E.S.P. ("H2O)	0.25
MOTOR (A)	0.53
ELECTRICAL (V-PH)	120V, 1P
DESIGN WEIGHT (LBS)	19
MANUFACTURER/MODEL	COOK/ GN-322

(1) PROVIDE FAN SPEED CONTROLLER.
(2) FAN TO OPERATE CONTINUOUSLY DURING REGULAR PARK HOURS.

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MECHANICAL FLOOR PLAN - RESTROOM BUILDING

M1.1

NOT FOR CONSTRUCTION

ONE INCH — DRAWING SET SCALE
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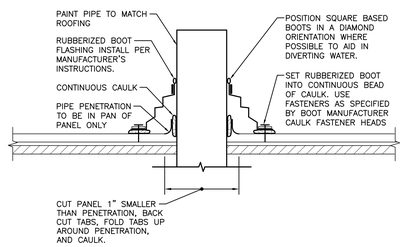


2 / P1.1 PLUMBING VENT DETAIL
NOT TO SCALE

WATER SERVICE CALCULATIONS

COLD WATER ONLY SERVICE APPLIANCES, APPURTENANCES OR FIXTURES	QTY	FIXTURE UNITS	CW UNITS	
HOSE BIBB	1	2.5	2.5	
HOSE BIBB, EACH ADDITIONAL	1	1.0	1.0	
COLD AND HOT WATER SERVICE APPLIANCES, APPURTENANCES OR FIXTURES	**QTY**	**FIXTURE UNITS**	**CW UNITS**	**HW UNITS**
LAVATORY	2	1.0	2.0	1.5
SINK, SERVICE OR MOP BASIN	1	1.5	1.5	1.1
FLUSH VALVE SERVICE APPLIANCES, APPURTENANCES OR FIXTURES	**QTY**		**CW UNITS**	
URINAL, FLUSHOMETER VALVE			0.0	
WATER CLOSET, FLUSHOMETER VALVE	2		70.0	
TOTAL FLUSH TANK FIXTURE UNITS			7.0	2.6
TOTAL FLUSH VALVE FIXTURE UNITS			70.0	
FLUSH TANK FLOW, gpm			6.0	
FLUSH VALVE FLOW, gpm			58.3	
TOAL FLOW, gpm			64.3	2.8

FLOW AND PRESSURE CALCULATIONS

TOAL FIXTURE FLOW		64.3 gpm
IRRIGATION FLOW		0 gpm
TOTAL FLOW REQUIRED		64.3 gpm
STREET PRESSURE		80 psig
MAXIMUM SERVICE PRESSURE AFTER PRV		70 psig
TOTAL PIPE LENGTH		200 ft
TOTAL EQUIVALENT PIPE LENGTH		250 ft
SERVICE NOMINAL PIPE SIZE		1 1/2 in
a) CALCULATED FRICTION LOSS (1)		29.14 psi
b) WATER METER PRESSURE LOSS		6 psi
c) BACKFLOW PREVENTER LOSS		7 psi
COMBINED PRESSURE LOSSES (a + b + c)		42.1 psi
STATIC (GRAVITY) HEAD REQUIRED	10.0 ft	4.35 psi
REQUIRED PRESSURE (1)		20 psig
AVAILABLE PRESSURE (2)		24 psig

(1) TO MOST HYDRAULICALLY REMOTE FIXTURE.
(2) AT MOST HYDRAULICALLY REMOTE FIXTURE.

PLUMBING FIXTURE CONNECTION SCHEDULE

MARK	FIXTURE	W	V	CW	MANUFACTURER	REMARKS
WC–1	WATER CLOSET HANDICAP	4	2	1	ACORN 1680–W–1–ULF1.6–FVBO–C01–HS–SW–TG SLOAN 952–1.6–MBFW	WALL MOUNTED, 1.6 GPF VALVE, ELONGATED, ADA HEIGHT, OPEN FRONT SEAT, PROVIDE CARRIER. HINGED PLASTIC SEAT
LV–1	LAVATORY PUBLIC	1–1/2	1–1/4	1/2	ACORN 1652–1–BPH–03M–LW1–OF–PBH–SW–TG	WALL HUNG, P–TRAP, SUPPLIES & STOPS
HB–1	HOSE BIBB			3/4	SMITH 5609QT	NON–FREEZE, PROVIDE KEY TO OWNER
DF–1	DRINKING FOUNTAIN BOTTLE FILLER	1–1/2	1–1/4	1/2	MOST DEPENDABLE MODEL 10485 WMSS	COORDINATE COLOR WITH ARCHITECT. "CHROME" IF AVAILABLE.
SS–1	MOP SINK	3	2	1/2	FIAT MSB–2424; CHICAGO 897 FAUCET	PROVIDE HOSE & BRKT832–AA, MOP HANGER 889–CC, STAINLESS STEEL BUMPER E–85–AA AND WALL GUARD
FD–1	FLOOR DRAIN	3	2		SMITH 2005–A	PRIME
BFP–1	BACKFLOW PREVENTER			1–1/2	WATTS MODEL LF009M2QT	SUPPORT WITH UNISTRUT FROM WALL
BFP–2	BACKFLOW PREVENTER			1	WATTS MODEL LF009M2QT	SUPPORT WITH UNISTRUT FROM WALL, PROVIDE FOR FUTURE WATER FEATURE

PLUMBING LEGEND

CW	COLD WATER	
CW	COLD WATER BELOW GRADE	
HW	HOT WATER	
V	VENT	
V	VENT BELOW GRADE	
W	SANITARY WASTE (BELOW GRADE)	
RD	RAIN DRAIN (ABOVE GRADE)	
RD	RAIN DRAIN (BELOW GRADE)	
B.G.	BELOW GRADE	
DS	DOWN SPOUT	
	FLOOR DRAIN	
(N)	NEW	
(R)	REMOVE	
VTR	VENT THRU ROOF	
CO	FLOOR CLEANOUT	
COTG	CLEANOUT TO GRADE	
WCO	WALL CLEANOUT	
	BALL VALVE	
	CHECK VALVE	
	HOSE BIBB	
WH–1	PLUMBING FIXTURE MARK NO. SEE PLUMBING FIXTURE CONNECTION SCHEDULE.	
1	SHEET NOTE	
	CONNECT TO EXISTING AT THIS POINT. VERIFY EXACT LOCATION, SIZE AND CONDITION.	

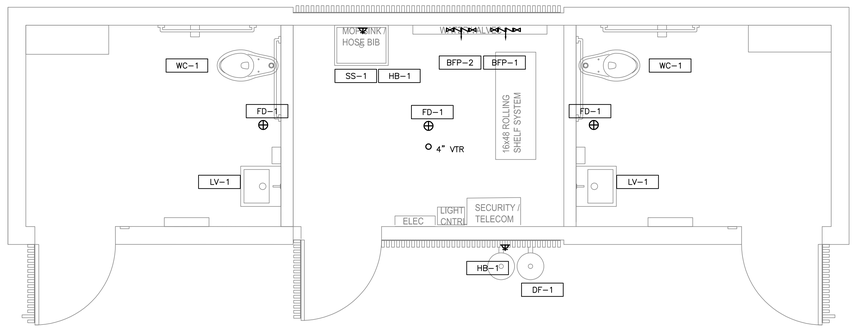
GENERAL NOTES

A. ALL WATER AND WASTE PIPING TO BE INSULATED, INCLUDING ALL WASTE TRAPS AND FLUSH VALVES. SEE SPECIFICATIONS. PROVIDE HEAT TAPE PENTAIR SELF–REGULATION BTV (OR EQUAL), 5 WATTS/FT. WRAP AT 10 INCHES ON CENTER. PROVIDE ALL INTERCONNECTION DEVICES AND EQUIPMENT FOR A COMPLETE INSTALLATION. INSTALL HEAT TRACING ON PIPING UNDER INSULATION. ALL WASTE TRAPS AND WASTE PIPING ALONG WITH ALL DOMESTIC WATER PIPING, OUTSIDE OF HEATED STORAGE AND UTILITY CHASE.

B. DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY OFFSET, BEND, TEE, OR ELBOW WHICH MAY BE REQUIRED TO INSTALL WORK IN THE SPACE PROVIDED. DO NOT SCALE DRAWINGS FOR ROUGHING–IN MEASUREMENTS, NOR USE AS SHOP DRAWINGS. MAKE FIELD MEASUREMENTS AND PREPARE SHOP DRAWINGS AS REQUIRED. COORDINATE WORK WITH SHOP DRAWINGS OF OTHER TRADES. PROVIDE ANY BENDS. OFFSETS AND ELBOWS WHERE REQUIRED BY LOCAL CONDITIONS FROM MEASUREMENTS TAKEN AT THE BUILDING (SUBJECT TO APPROVAL) AND WITHOUT ADDITIONAL COST TO THE PROJECT. THE RIGHT IS RESERVED TO MAKE ANY REASONABLE CHANGES IN OUTLET LOCATION PRIOR TO ROUGH–IN.

C. CONTRACTOR IS TO FIRE CAULK ALL PIPING PENETRATIONS THRU FIRE RATED WALLS.

D. PROVIDE A 1" CW BACKFLOW PREVENTER FOR FUTURE WATER FEATURE.



1 / P1.1 BUILDING PLAN - PLUMBING
SCALE: 1/2" = 1'–0"

NOT FOR CONSTRUCTION

ONE INCH
[PLUMBING SET SCALE]
IF THIS BAR DOES NOT MEASURE 1–INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

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Phone: (503) 726-3313
Fax: (503) 726-3326
E-mail: rweng@rweng.com
Project No.: 1170.010.001
Contact: DIWAYNE JOHNSON

MILWAUKIE BAY PARK
100% Design Development
11211 SE McLoughlin Blvd, Milwaukie, OR 97222
DATE: 06/01/2022 SCALE: AS NOTED DRAWN BY: R&W

REVISIONS

DATE	DESCRIPTION	BY

PLUMBING FLOOR PLAN - RESTROOM BUILDING

P1.1

Appendix D

Natural Resource Review Report

MILWAUKIE BAY PARK PHASE 3 IMPROVEMENTS

Natural Resource Review

Prepared for
2.ink Studio and North Clackamas Parks and Recreation District

June 2022

MILWAUKIE BAY PARK PHASE 3 IMPROVEMENTS

Natural Resource Review

Prepared for
2.ink Studio and North Clackamas Parks
and Recreation District

June 2022

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Milwaukie Bay Park Phase 3 Improvements

1. INTRODUCTION

North Clackamas Parks and Recreation District (NCPRD) and the City of Milwaukie (City) are partnering to complete the Milwaukie Bay Park Phase 3 Improvements Project. The park site is located along the Willamette River in downtown Milwaukie, and the proposed project includes elements within Water Quality Resource (WQR) area and Habitat Conservation Area (HCA). Construction activities within WQR areas and HCA are regulated under Milwaukie Municipal Code (MMC) Chapter 19.402 – Natural Resources.

This Natural Resources Review report describes the site conditions and presents an impact evaluation, alternatives analysis, and mitigation proposal for WQR and HCA impacts in accordance with MMC 19.402 requirements. This report accompanies an application for land use approval and is intended to support the City's review of the project under a Type III Natural Resources Review procedure.

2. SITE LOCATION

Milwaukie Bay Park encompasses approximately 8.5 acres of land at 11211 SE McLoughlin Blvd. in downtown Milwaukie, Clackamas County, Oregon. The park is generally situated between Johnson Creek to the north, Kellogg Creek to the south, SE McLoughlin Blvd. (Oregon Highway 99E) to the east, and the Willamette River to the west.

The proposed Phase 3 park improvements addressed in this application are located within an approximately 3.5-acre portion of the park on parts of the following tax lots: 11E35AD 00900, 01000, and 01001; 11E35AA 02200, 02300, 02400, 02500, 02600, 02700, 02800, 04700, 04800, 04900, and 05000. Parts of the existing and new permanent alignment of the Trolley Trail that is part of the park are also located outside of these parcels on four (4) segments of ODOT ROW along SE McLoughlin Blvd/OR99E. Refer to the Project Area Map in Appendix A.

The entire park site and project area are zoned by the City as Open Space (OS) and within the Willamette River Greenway overlay zone. The park is bordered by open space and residential property to the north and northwest, the Kellogg Water Resource Recovery Facility to the south, ODOT SE Mcloughlin Blvd/OR99E and ROW to the east, and commercial properties in the Downtown Mixed Use (DMU) zone to the east beyond SE McLoughlin Blvd.

3. EXISTING SITE DEVELOPMENT AND PROJECT DESCRIPTION

The City adopted a plan for the park in 2010 to serve as the foundation for many agencies, community partners, and local citizens to participate in shaping park improvements over the years. Many elements of the plan have been designed and constructed over the past 12 years, including the Klein Point Overlook at the Johnson Creek confluence with the Willamette River; a new boat launch and dock; auto and boat trailer parking; a single restroom facility; a temporary Trolley Trail connection; a riverside path; riverbank stabilization and plantings; an improved access bridge over Kellogg Creek; and riverbank erosion repairs with new pedestrian beach access.

The proposed Phase 3 park improvements build on previous site improvements and include a nature-themed children's play area; a gathering/event area with an open lawn, stage and fire pit for special events; a nature-themed interactive water feature; new pathways; picnic areas; a restroom structure and shade structure; improvements to the existing Trolley Trail; public art; vegetation plantings and new stormwater management infrastructure.

- Nature Play Area: This area will provide a play space on three levels of the park and incorporate natural elements including rocks and logs as well as traditional and inclusive playground equipment.

- Event Area: The event area will comprise 20,000 square feet of open lawn space for events such as concerts, movies, festivals and plays. The area will include a platform for use as a stage or small gathering spot and a reservable community fire pit for special events. The lawn features subdrainage lines to extend seasonal usability. Mitigation measures to prevent geese from using the area include barrier vegetation and low fencing, a swale, and footbridges.

- Interactive Water Feature: The water feature will be a zero-depth splash pad operated by push-button activation for seasonal use. When not in operation, the area will serve as a secondary plaza with seating and natural stone elements. Water from splash pad operation will drain to the sanitary sewer system. When not in operation, rain falling on the splash pad area will be valved to drain to a swale.

- Pathways: A series of pathways ranging in width from 6 feet to 10 feet will be constructed and will connect all park features, including those currently at the site such as Klein Point, the existing lower riverside pathway, parking lot, and crosswalks at SE McLoughlin Blvd. The paths will feature non-slip surfaces and will be ADA accessible. The 10' wide walkways will be rated for vehicular use to allow maintenance vehicles and events-related access into the park.

- Picnic Areas: Picnic areas with a variety of seating types and trash receptacles will be constructed near the Trolley Trail and the water feature.

- Restroom: A two-stall restroom structure that includes a central utility room with storage will be constructed. Exterior materials will consist of board-formed concrete and finished wood. A drinking fountain and bottle filler will be located on the exterior of the structure.

- Shade Structure: A trellis will be constructed to provide shade for the adjacent picnic areas. The structure will be painted steel and designed to complement the restroom structure.

- Trolley Trail: The portion of the Trolley Trail that runs through the project site will be widened to 14 feet and tapered at north and south ends to meet existing condition (12 feet at south, 7 feet 9 inches at north). The multiuse path will be shared, with decals and signage indicating shared use in both northerly and southerly directions. Bicycle parking will also be provided near the trail.

- Public Art: A series of heron sculptures have been proposed by Confederated Tribes of Grand Ronde to be placed seasonally at the site during the annual salmon run. The concept from CTGR is being coordinated with the City and NCPRD. The CTGR proposes to lead solicitation and installation of art annually by different sculptors.

- Vegetation: Proposed plantings of native species are intended to increase tree canopy coverage, increase potential native habitat areas at the site, and mitigate impacts to natural resource areas, while protecting views of the river. The existing large coastal redwood on the site will be preserved, as will the street trees along SE McLoughlin Blvd.

A Materials Plan showing the layout of the proposed improvements is included on Sheets L2.01 through L2.04 in Appendix B.

4. EXISTING WQR AND HCA CONDITIONS

4.1 Water Quality Resource (WQR) Area

Milwaukie Bay Park is located on the east bank of the Willamette River approximately 18.5 miles upstream of the confluence with the Columbia River and approximately 7.5 miles downstream of Willamette Falls in Oregon City. Johnson Creek flows into the Willamette River at Klein Point in the northern portion of the park and project area. The Willamette River and Johnson Creek are considered 'primary protected water features' under the regulations of MMC 19.402.

As described in MMC Table 19.402.15 (Determination of WQR Location), primary protected water features have an associated vegetated corridor of 50 to 200 feet wide depending on the slopes adjacent to the feature. The U.S. Army Corps of Engineers (USACE)-published ordinary high water (OHW) elevation for the Willamette River in the project area is 18.4 feet NDVD29 vertical datum, or 21.9 feet NAVD88 vertical datum. Based on observations of field indicators, and on observations made at the site during high water conditions in past years, this OHW elevation represents a reasonable 'bankfull stage' for both the Willamette River and Johnson Creek at the confluence in the project area, for purposes of establishing the boundaries of the protected water features for measuring adjacent slopes.

The slopes adjacent to the river OHW level in the project area are less than 25% for most of the project area south of Klein Point, producing a WQR with a vegetated corridor width of 50' extending uphill from the OHW boundary. Steeper slopes are present at Klein Point and upstream along the south bank of Johnson Creek. Topographic survey contours were used to determine breaks in slopes for establishing WQR boundaries greater than 50' from OHW where slopes exceed 25%, using the methods in MMC Table 19.402.15.

The WQR area in the project area is shown on Sheet L6.00A in Appendix B of this report. The total area of WQR vegetated corridor within the project limits is approximately 33,758 square feet (0.77 acre). Approximately 7,066 square feet of this (0.16 acre) is encroached upon by impervious surface from existing park development.

4.2 Habitat Conservation Area (HCA)

The City's Natural Resources Administrative Map, adopted August 2011, identifies HCA within the project area as shown on L6.00A in Appendix B. The HCA boundaries used in this review are based on the City's Geographic Information System (GIS) mapping of the HCA. The total area of HCA mapped within the project limits is approximately 44,163 square feet (1.01 acre). Approximately 2,462 square feet (0.06 acre) of this is encroached upon by impervious surface from existing park development.

5. IMPACT EVALUATION AND ALTERNATIVES ANALYSIS

The impact evaluation and alternatives analysis requirements of **MMC 19.402.12 – General Discretionary Review** are listed and addressed in the following sections.

A. Impact Evaluation and Alternatives Analysis

The alternatives shall be evaluated on the basis of their impact on WQRs and HCAs, the ecological functions provided by the resource on the property, and off-site impacts within the subwatershed (6th Field Hydrologic Unit Code) where the property is located. The evaluation and analysis shall include the following:

1. **Identification of the ecological functions of riparian habitat found on the property, as described in Subsection 19.402.1.C.2.**

Response:

Vegetated Corridors to Separate Protected Water Feature from Development

The vegetated corridor along the Willamette River and Johnson Creek on the western portion of the site separates those water bodies from the existing park development, and from SE McLoughlin Blvd. and downtown Milwaukie to the east. The functional vegetated corridor, which contains native trees, shrubs, and groundcover and provides some wildlife habitat and water quality benefit, is limited to the portions of the site below the existing Riverside Path, which meanders through the park in a generally north-south direction above the top of the bank. Vegetation within the WQR/HCA above and east of the Riverside Path consists mainly of lawn.

Microclimate and Shade

The shoreline in the project area has a narrow band of riparian vegetation (~35’ to 50’ wide for most of its length) with intermittent large-tree canopy coverage and smaller trees and shrubs throughout. The vegetated corridor in the northern part of the project area – north of the stone access steps that were constructed in 2018 – has larger trees and more substantial canopy coverage than the corridor in the southern part of the site, which has riparian vegetation that was planted more recently as part of previous phases of park development. Larger trees along the Willamette River at the site are primarily black cottonwood, with bigleaf maple at the northern end of the site above Johnson Creek. The trees and native shrubs provide some shading and microclimate temperature regulation in a narrow band along the water. Those functions are lacking in WQR and HCA areas uphill of the Riverside Path.

Streamflow Moderation and Water Storage

The shoreline vegetation along the Willamette River through the project area provides some bank roughness for attenuating high-flow velocities. Moderate bank slopes for portions of the shoreline accommodate some water storage function during high flows, with water levels maintained below the Riverside Path during ordinary high-water flows. Much of the site within and outside of WQR and HCA is within the 100-year floodplain.

Water Filtration, Infiltration, and Natural Purification
The vegetated shoreline below the Riverside Path provides some opportunity for water filtration, infiltration, and natural purification for overland runoff from uphill portions of the park, which currently consist primarily of lawn and pedestrian paths. A stormwater treatment basin collects and treats runoff from the adjacent vehicle parking lot in the southern portion of the project area, discharging flows to the Willamette River within the vegetated corridor.

Large Wood Recruitment and Retention and Natural Channel Dynamics
The larger trees along the shoreline in the project area are a potential large wood source, and the project reach of shoreline has moderate potential for large wood recruitment from upstream sources. The shoreline along the park has received bank stabilization treatments during previous phases of park development that have included boulders, log crib walls, and plantings intended to discourage bank erosion, channel migration, and impacts to park development.

Organic Material Sources
The trees, shrubs, and herbaceous vegetation in the narrow riparian band along the river and creek below the Riverside Path provide a source of organic material to those streams.

2. An inventory of vegetation, sufficient to categorize the existing condition of the WQR per Table 19.402.11.C, including the percentage of ground and canopy coverage materials within the WQR.

Response: For the purposes of categorizing the existing condition of the WQR per Table 19.402.11.C, there are two main vegetation community types at the site that can generally be described as: (1) a riparian plant community that extends from the water up the bank to the existing Riverside Path and the Klein Point Overlook path, and (2) maintained park lawn on the uphill side of the paths.

Riparian Plant Community (Class B – Marginal)
Species composition and tree canopy coverage varies by location through the riparian zone, but the overall WQR condition in the riparian zone below the existing park riverside paths is most appropriately classified as Class B (Marginal), based on the combination of trees, shrubs, and groundcover having at least 80% coverage throughout the zone, with 25-50% canopy coverage. While high canopy (large tree) coverage is less than 25% on parts of the shoreline, particularly in the southern portion where recent park development and shoreline bank stabilization/planting work has occurred, small (low canopy) native trees are present and will grow over time.

The largest trees in the riparian zone consist of black cottonwood (*populus trichocarpa*), with red alder (*alnus rubra*) and willow (*willow spp.*) also present along the Willamette River and bigleaf maple (*Acer macrophyllum*) and a burr oak (*Quercus macrocarpa*) at the far north end of the site along Johnson Creek. Native shrubs in the riparian zone include Pacific ninebark (*Physocarpus capitatus*), rose spirea (*Spirea douglasii*), snowberry (*Symphocarpus mollis*), mock orange (*Philadelphus lewisii*), and tall Oregon grape (*Berberis aquifolium*), with coverages typically in the 30% to 70% range. Groundcover is dense along much of the shoreline (coverage of 100% or more), with a mix of native and non-native species that vary by location and include horsetail (*Equisetum ar*vense), rye grass (*Elmus sp.*), velvet grass (*Holcus lanatus*), cleavers (*Galium arpine*), Canada

thistle (*Cirsium arvense*), meadow barley (*Hordeum brachyantheum*), Roemer's fescue (*Festuca romeri)*, cutleaf geranium (*Geranium dissectum*), vetch (*Vicia americana*), teasle (*Dipsacus fullonum*), and western dock (*Rumex occidentalis*).

Park Lawn (Class C – Poor)
The dominant plant community within the portion of the WQR on the uphill side of the riverside paths is maintained lawn with no trees or shrubs. The groundcover plant species in this community are dominated by lawn grass (*Poa sp.*), with species including narrow-leaf plantain (*Plantago lanceolate*), common daisy (*Bellis perennis*), common dandelion (*Tanacetum vulgare*), clover (*Trifolium repens*), and Hairy cat's ear (*Hypochaeris radicata*) also present.

3. An assessment of the water quality impacts related to the development, including sediments, temperature and nutrients, sediment control, and temperature control, or any other condition with the potential to cause the protected water feature to be listed on DEQ's 303(d) list.

Response: The Willamette River is currently on DEQ's 303(d) list for parameters including cyanide, aldrin, dieldrin, ethylbenzene, hexachlorobenzene, DDT and DDE, PCBs, biocriteria, PAHs, and temperature. Johnson Creek is on DEQ's 303(d) list for parameters including temperature, biocriteria, endosulfan, PCBs, PAHs, and endrin aldehyde. The proposed project is unlikely to cause the addition of any parameters to DEQ's 303(d) list for the Willamette River or Johnson Creek.

The project's potential for water quality impacts includes the short-term increased potential for erosion and sediment transport during construction as a result of ground disturbance. Erosion and sediment control measures will be implemented during construction to manage those concerns, as required by City regulations and the NPDES Construction Stormwater Permit from DEQ that will be obtained for disturbance in excess of 1 acre. The proposed site revegetation plans will stabilize the site after construction, and long-term issues with erosion and sediment are not expected after construction with the proposed stormwater management.

Stormwater runoff from approximately 0.66 of new impervious surfaces introduced by the project will be managed and treated for water quality through a combination of a new vegetated swale, use of an existing on-site stormwater basin (for the parking lot and SW portion of the proposed work area), and use of pervious pavement for the Trolley Trail to infiltrate runoff on-site. The new impervious surfaces are predominantly non-pollution generating impervious surface (e.g., pedestrian paths and non-vehicular park features), and the project does not introduce operational changes that would substantially increase the risk of pollutant discharges to the river or creek (i.e., the site remains a park with no introduction of hazardous material storage or point source discharges). The stormwater management is being designed to meet requirements of the City and the City of Portland's Stormwater Management Manual, as described in the Preliminary Stormwater Management Report (Zucker Engineering and Design, 2022) included with the land use application.

The project is not expected to result in temperature impacts to the receiving waters, as it would not remove any trees from the riparian zone and would plant approximately 165 trees in WQR/HCA zones. Pet waste will continue to need to be managed appropriately at the park to limit nutrient contributions to surface waters. The project is not expected to increase other sources of nutrients;

fertilizer use would not increase as the total area of lawn is reduced by this project. Geese mitigation strategies in the proposed design may reduce waste from geese that currently is a source of nutrients that can be discharged to the waterways through overland flow during storm events.

4. An alternatives analysis, providing an explanation of the rationale behind choosing the alternative selected, listing measures that will be taken to avoid and/or minimize adverse impacts to designated natural resources, and demonstrating that:

a. No practicable alternatives to the requested development exist that will not disturb the WQR or HCA.

Response: There are no practicable alternatives that could entirely avoid impacts to the WQR or HCA. The proposed park improvements meet a need and City planning direction specific to Milwaukie Bay Park; other sites without WQR or HCA are not an option. Mapped HCA extends well into the site's interior, and impacts could not be avoided even if all project elements were moved even farther away from the river than proposed. WQR boundaries are closer to the river but still extend far enough into the site that the WQR encompasses previously permitted and constructed park elements (paths) that the proposed project elements need to connect and integrate with.

b. Development in the WQR and/or HCA has been limited to the area necessary to allow for the proposed use.

Response: The proposed project revisits and advances park improvements envisioned in the 2010 Milwaukie Riverfront Park Master Plan and Program (e.g., amphitheater, play area, restroom, water feature) and incorporates comments received on desired park elements through an extensive community engagement process completed in 2018-2019. The proposed design limits WQR/HCA impacts to the extent practicable while still meeting the key community objectives for the park.

The available space in the park is constrained by the Willamette River to the west and SE McLoughlin Blvd. to the east. The proposed design reflects an effort to move as much of the heavily programmed areas (playground, water feature, plaza, and restroom) away from the river and to the highest portion of the site practicable, to limit both WQR/HCA impacts and floodplain impacts. Public comments received during the outreach process also expressed a strong preference to keep elements such as the water feature and playground away from SE McLoughlin Blvd along the site's eastern perimeter as much as possible.

The proposed design balances site constraints and public concerns, while retaining the key park elements envisioned in the 2010 master plan and program. Further limiting impacts to WQR and HCA would likely mean eliminating programmed elements from the park.

c. If disturbed, the WQR can be restored to an equal or better condition in accordance with Table 19.402.11.C; and the HCA can be restored consistent with the mitigation requirements of Subsection 19.402.11.D.2.

Response: WQR and HCA disturbances will be mitigated based on the WQR requirements in Table 19.402.11.C and HCA standards in 19.402.11.D.2, as discussed in the mitigation plan subsections of 19.402.12.A.6 below.

d. Road crossings will be minimized as much as possible.

Response: The project does not involve road crossings.

5. Evidence that the applicant has done the following, for applications proposing routine repair and maintenance, alteration, and/or total replacement of existing structures located within the WQR:

a. Demonstrated that no practicable alternative design or method of development exists that would have a lesser impact on the WQR than the one proposed. If no such practicable alternative design or method of development exists, the project shall be conditioned to limit its disturbance and impact on the WQR to the minimum extent necessary to achieve the proposed repair/maintenance, alteration, and/or replacement.

b. Provided mitigation to ensure that impacts to the functions and values of the WQR will be mitigated or restored to the extent practicable.

Response: The proposed project does not involve the routine repair and maintenance, alteration, or total replacement of existing structures within the WQR. These criteria do not apply.

6. A mitigation plan for the designated natural resource that contains the following information:

a. A description of adverse impacts that will be caused as a result of development.

Response: The project will involve temporary construction activity and permanent project elements within WQR areas and HCA. Approximately 25,136 square feet (0.58 acre) of WQR and 34,492 square feet (0.79 acre) of HCA will be temporarily disturbed and revegetated as part of the construction. Approximately 6,808 square feet of WQR (0.16 acre) and 9,671 square feet (0.22 acre) of HCA will be permanently disturbed by park structures or pavements, for a total combined WQR/HCA impact of about 16,479 square feet (0.38 acre).

There is overlap between WQR and HCA on the site, and as noted on the impact tables in the plans (Sheet L6.00A), where there is overlap the impact area in the numbers above show the impact allocated to HCA rather than WQR. This approach allows for an accurate depiction of total combined WQR/HCA impacts for the project and applies the more prescriptive mitigation requirements for HCAs in 19.402.11.D.2 to a larger share of the combined impact area.

b. An explanation of measures that will be taken to avoid, minimize, and/or mitigate adverse impacts to the designated natural resource; in accordance with, but not limited to, Table 19.402.11.C for WQRs and Subsection 19.402.11.D.2 for HCAs.

Response: As described in this report, the functional vegetated riparian corridor in Milwaukie Bay Park is located below the existing riverside paths, with areas above the paths consisting of maintained park landscaping (primarily open lawn), with sidewalk and parking lot in the WQR in the southern portion of the project area. Importantly, the project design avoids and minimizes impacts to ecological functions by not introducing new development to the functional vegetated corridor below the existing paths. All project elements will be at or above the level of the existing paths along the river and to the Klein Point Overlook.

The project as designed requires no in-water work or removal of trees or shrubs in the functional riparian corridor below the existing paths. Tree protection measures will be installed prior to ground disturbing activities to ensure trees are not inadvertently impacted. Erosion and sediment control measures will be implemented to minimize temporary impacts to the Willamette River and Johnson Creek during construction.

Temporary WQR/HCA disturbance areas will be restored to conditions better than the existing condition, and mitigation plantings are proposed in designated areas to compensate for permanent impacts within WQR area and HCA, as shown on Sheet L6.00B in Appendix A.

Plant schedules are shown on Sheets L6.01 – L6.04 in Appendix A. The plant schedules identify mitigation trees and shrubs needed to meet the HCA mitigation standards of 19.402.11.D.2 (Mitigation Option 2), which requires planting native trees and shrubs at a rate of 5 trees and 25 shrubs per 500 sq. ft. of HCA disturbance area, which for this project requires 97 trees and 484 shrubs for the 9,671 sq. ft. of permanent HCA impact. The proposed HCA mitigation plantings will cover an area of approximately 14,500 sq. ft., or approximately 1.5 times the HCA permanent impact area and will meet HCA mitigation planting standards for size, spacing, and diversity as outlined in 19.402.11.B.

A separate WQR mitigation area is shown on Sheet L6.00B to address the permanent impacts to 6,808 sq. ft. of WQR impact. WQR mitigation is intended to address the requirements of Table 19.402.11.C, which for Class C (Poor) condition WQR requires mitigation to:

- Restore and mitigate disturbed areas with native species from the Milwaukie Native Plant List, using a City-approved plan developed to represent the vegetative composition that would naturally occur on the site.
- Plant and/or seed all bare areas to provide 100% surface coverage.
- Inventory and remove debris and noxious materials.

The proposed WQR mitigation plantings include a mix of native and ornamental trees and shrubs, with total proposed WQR tree numbers meeting the 5 trees/500 sq. ft. of disturbance area threshold for HCAs. At approximately 10,200 square feet, the proposed WQR mitigation zone is approximately 1.5 times the permanent WQR impact area. All bare areas within the mitigation zone will be planted or seeded to provide 100% surface coverage, and debris and noxious materials will be inventoried and removed prior to planting.

The proposed HCA and WQR mitigation will occur on-site and in areas within or contiguous with existing HCA and WQR areas. Overall, the proposed project will remove no riparian trees and shrubs and will plant at least 165 trees of predominantly native species and at least 511 native shrubs, providing an ecological lift to the site in terms of vegetation diversity, habitat structure, and water quality functions.

c. Sufficient description to demonstrate how the following standards will be achieved:

(1) Where existing vegetation has been removed, the site shall be revegetated as soon as practicable.

Response: Revegetation of disturbed areas will be done as early as practicable in the construction schedule to stabilize soils and initiate plant establishment. Construction is estimated to occur from approximately March 2023 to February 2024, which would allow woody vegetation to be installed towards the end of the construction period, with no delay needed to avoid installation during dry summer conditions.

(2) Where practicable, lights shall be placed so that they do not shine directly into any WQR and/or HCA location. The type, size, and intensity of lighting shall be selected so that impacts to habitat functions are minimized.

Response: The walkways that comprise the Riverside Pathway, within the WQR on the western portion of the site, will utilize existing bollard lights in that area on the outside (uphill side) of the path. The path will continue to be lit to a calculated average of 0.5 footcandles to meet City code requirements for lighting of walkways.

Lighting for the Trolley Trail portion of the project on the eastern part of the site, which is mostly outside of WQR and HCA with the exception of the northern project limits, will be provided by existing light posts, two relocated light posts, and two new light posts proposed with this project. The new and relocated lights proposed for the Trolley Trail are intended to better distribute lighting along the trail to a calculated average of 1.0 footcandle and meet City code standards for safety.

Internal pathways between the Riverside Path and the Trolley Trail will not be lit, recognizing that redundant lighting between the two main trails is unnecessary for safe movement through the park and would unnecessarily introduce new lighting within WQR and HCA areas.

(3) Areas of standing trees, shrubs, and natural vegetation will remain connected or contiguous; particularly along natural drainage courses, except where mitigation is approved; so as to provide a transition between the proposed development and the designated natural resource and to provide opportunity for food, water, and cover for animals located within the WQR.

Response: As described in this report, the areas of natural trees, shrubs, and groundcover within WQR and HCA on the site are located on the downhill side of the existing riverside paths. That existing functional vegetated corridor will be maintained by this project, as the proposed

improvements are located along and above the existing riverside paths and will not involve removal of the existing natural riparian vegetation.

d. A map showing where the specific mitigation activities will occur. Off-site mitigation related to WQRs shall not be used to meet the mitigation requirements of Section 19.402.

Response: Proposed mitigation areas are shown on Sheet L6.00B in Appendix A. The proposed mitigation is on-site in areas within or contiguous with existing WQR and HCA. No off-site mitigation is proposed.

e. An implementation schedule; including a timeline for construction, mitigation, mitigation maintenance, monitoring, and reporting; as well as a contingency plan. All in-stream work in fish-bearing streams shall be done in accordance with the allowable windows for in-water work as designated by ODFW.

Response: Construction of the project is planned for approximately March 2023 to February 2024. Removal of any existing artificial debris, noxious materials, and invasive species will occur in the planting areas prior to planting. Mitigation plantings will be installed during the construction period, likely during the latter part of the schedule and within the MMC-recommended planting windows of December 1 to April 15 for bare root trees and October 15 to April 30 for potted plants. Monitoring and maintenance of the mitigation plantings will be performed for a minimum of two years to ensure a minimum 80% survival rate. An annual report on the survival rate of the mitigation plantings will be prepared and submitted to the City for two years after plant installation.

The project will not involve any in-stream work subject to the limitations of ODFW-designated in-water work windows.

6. APPROVAL CRITERIA

The approval criteria from **MMC 19.402.12 – General Discretionary Review** are listed and addressed in the following sections.

B. Approval Criteria

1. Unless specified elsewhere in Section 19.402, applications subject to the discretionary review process shall demonstrate how the proposed activity complies with the following criteria:

a. Avoid

The proposed activity avoids the intrusion of development into the WQR and/or HCA to the extent practicable. The proposed activity shall have less detrimental impact to the designated natural resource than other practicable alternatives, including significantly different practicable alternatives that propose less development within the resource area.

Response: As described in responses to 19.402.12.A.4 in this report, the project avoids development into the WQR and HCA to the extent practicable and avoids new development within the functional vegetated corridor entirely (i.e., that area of trees, shrubs, and herbaceous species along the river below the existing riverside paths).

An alternatives analysis was performed during the planning and preliminary design phases of this project, with three alternatives shared with the public during 2018-2019 outreach efforts. The alternatives analysis explored different layouts and amenity highlights while all attempting to capture the common key programmed elements for the park. The alternative selected to advance into final design (Alternative 1 – "Flow") had equal or lesser WQR/HCA impacts than the other two alternatives (Alternative 2- "Fluvial" and Alternative 3 – "Vista"). Additionally, WQR/HCA impacts were further avoided as the Alternative 1 design was advanced from the preliminary stage to the design proposed in the land use application, by shifting the playground location farther away from the river and removing from the design a river overlook that would have extended into the vegetated corridor on the west side of the existing Riverside Path.

b. Minimize

If the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the designated natural resource, then the proposed activity within the resource area shall minimize detrimental impacts to the extent practicable.

(1) The proposed activity shall minimize detrimental impacts to ecological functions and loss of habitat, consistent with uses allowed by right under the base zone, to the extent practicable.

Response: The proposed park improvements are consistent with the "Parks and open space" uses permitted outright in the Open Space zone under MMC 19.304.2. The proposed project minimizes habitat loss and detrimental impacts to ecological functions and habitat loss by siting all new development outside of the functional vegetated corridor on the river and creek

banks below the existing riverside paths, and mitigating for impacts to WQR/HCA areas consisting mostly of park landscaping (lawn) through planting of trees, shrubs, and groundcover within and adjacent to existing WQR/HCA.

- Vegetated Corridors to Separate Protected Water Feature from Development: The project will preserve the site's existing functional vegetated corridor of trees, shrubs, and groundcover located adjacent to the river and creek below the existing park development (riverside paths).

- Microclimate and Shade: The project's complete avoidance of tree and shrub removal along the river and creek, and the addition of trees and shrubs to the site as proposed in the planting plan, minimizes microclimate and shade impacts.

- Streamflow Moderation and Water Storage: The project will maintain bank roughness by avoiding vegetation removal and grading below the existing riverside paths. Based on the proposed grading plan, the project will result in a net cut of approximately 200 cubic yards of material from the 100-year floodplain and will not result in a rise in 100-year flood water surface elevations.

- Water Filtration, Infiltration, and Natural Purification: The project maintains these functions immediately adjacent to the river and creek by leaving the existing vegetated corridor below the Riverside Path undisturbed. Where soil infiltration rates are suitable on the upper portion of the site, the project will use permeable pavement for Trolley Trail improvements to infiltrate stormwater from new path surface. Stormwater runoff from other proposed new impervious surfaces will be collected and filtered through vegetated treatment prior to discharge to the Willamette River.

- Large Wood Recruitment and Retention and Natural Channel Dynamics: Impacts to large wood recruitment potential and natural channel dynamics are avoided and minimized by the project with the retention of all trees within vegetated corridor below the Riverside Pathway and the avoidance of disturbance below OHW or on the banks below the existing paths.

- Organic Material Sources: The retention of existing shoreline vegetation and the proposed addition of at least 165 trees and over 500 shrubs would minimize impacts to organic material sources.

(2) To the extent practicable within the designated natural resource, the proposed activity shall be designed, located, and constructed to:

(a) Minimize grading, removal of native vegetation, and disturbance and removal of native soils; by using the approaches described in Subsection 19.402.11.A, reducing building footprints, and using minimal excavation foundation systems (e.g., pier, post, or piling foundation).

Response: The project will incorporate the impact minimization measures of MMC 19.402.11.A for work in WQR areas and HCA as follows:

- Work areas will be marked to reduce potential damage to the WQR and/or HCA.
- Trees in WQRs or HCAs will not be used as anchors for stabilizing construction equipment.
- Native soils disturbed during development shall be conserved on the property.
- An erosion and sediment control plan will be prepared in compliance with requirements set forth in the City's Public Works Standards.
- Site preparation and construction practices will be followed that prevent drainage of hazardous materials or erosion, pollution, or sedimentation to any WQR adjacent to the project area.
- Stormwater from new impervious surfaces associated with the project will be managed to meet City stormwater management requirements, including treatment of the pollution reduction design storm. The site is adjacent and discharges to the Willamette River, which is exempt from flows control requirements.
- Prior to construction, the WQR and/or HCA that is to remain undeveloped will be flagged, fenced, or otherwise marked and will remain undisturbed. Such markings will be maintained until construction is complete.
- The construction phase of the development will be done in such a manner as to safeguard the resource portions of the site that have not been approved for development.
- As described in the response to 19.402.12.A.6.c.2, the proposed lighting plan has been developed to minimize impact to habitat functions, using existing bollard lighting for the Riverside Pathway and existing/relocated/new lights for the Trolley Trail to meet safety requirements, while leaving internal pathways unlit to avoid redundant lighting and unnecessary lighting impacts to WQR/HCA.
- All work on the property will conform to a construction management plan prepared according to Subsection 19.402.9. The construction management plan will be submitted to the City's Engineering Department

(b) Minimize adverse hydrological impacts on water resources.

Response: The project site discharges directly to the Willamette River, and the proposed site improvements will not substantially change river hydrology. The project minimizes impacts from new impervious surface by incorporating permeable pavement into the Trolley Trail improvements to infiltrate stormwater in place where infiltration rates are suitable, and will ensure proposed new and existing stormwater treatment systems are adequately sized for treatment and conveyance in accordance with City and Portland Stormwater Management

Manual requirements. Flows control requirements do not apply to sites that discharge directly to the Willamette River.

(c) Minimize impacts on wildlife corridors and fish passage.

Response: The project involves no elements below the OHW level of the Willamette River and will not affect fish passage. The project minimizes impacts on wildlife corridors along the river by keeping the proposed project elements above and outside of the existing vegetation (trees, shrubs, and groundcover) along the river below the existing Riverside Pathway.

(d) Allow for use of other techniques to further minimize the impacts of development in the resource area; such as using native plants throughout the site (not just in the resource area), locating other required landscaping adjacent to the resource area, reducing light spill-off into the resource area from development, preserving and maintaining existing trees and tree canopy coverage, and/or planting trees where appropriate to maximize future tree canopy coverage.

Response: The project includes plantings of native species within and outside of resources areas to increase overall tree canopy coverage at the site. An existing large coastal redwood on the site will be preserved, as will the street trees along SE McLoughlin Blvd.

c. Mitigate

If the applicant demonstrates that there is no practicable alternative that will avoid disturbance of the designated natural resource, then the proposed activity shall mitigate for adverse impacts to the resource area. All proposed mitigation plans shall meet the following standards:

(1) The mitigation plan shall demonstrate that it compensates for detrimental impacts to the ecological functions of resource areas, after taking into consideration the applicant's efforts to minimize such detrimental impacts.

Response: As presented in this report, the project would permanently impact a total combined HCA/WQR area of approximately 0.38 acres consisting mostly of lawn. To compensate for permanent impacts to ecological functions (and the potential for future ecological functions by replacing lawn with pavement/structures), the project includes approximately 0.57 acre of designated mitigation area that would be planted with native trees, shrubs, and groundcover, increasing the vegetation diversity, habitat structure, and tree canopy coverage for the site. Impacts on water quality and hydrologic functions from new impervious surfaces would be mitigated through the proposed stormwater management approach, which will infiltrate where feasible, treat the water quality design storm, and include adequately sized conveyance to direct discharges to the Willamette River in accordance with City stormwater management requirements.

(2) Mitigation shall occur on the site of the disturbance, to the extent practicable. Off-site mitigation for disturbance of WQRs shall not be approved. Off-site mitigation for disturbance of HCAs shall be approved if the applicant has demonstrated that it is not practicable to complete the mitigation on-site and if the applicant has documented that they can carry out and ensure the success of the off-site mitigation as outlined in Subsection 19.402.11.B.5. In addition, if the off-site mitigation area is not within the same subwatershed (6th Field Hydrologic Unit Code) as the related disturbed HCA, the applicant shall demonstrate that it is not practicable to complete the mitigation within the same subwatershed and that, considering the purpose of the mitigation, the mitigation will provide more ecological functional value if implemented outside of the subwatershed.

Response: The proposed mitigation is on-site within Milwaukie Bay Park. Off-site mitigation is not proposed.

(3) All revegetation plantings shall use native plants listed on the Milwaukie Native Plant List.

Response: The planting plan includes native tree, shrub, and groundcover species as shown on Sheets L6.01-L6.04. Native trees proposed for mitigating HCA impacts per the 5 trees/500 sq. ft. disturbance area criterion include cascara buckthorn (*Rhamnus purshiana*), red alder (*Alnus rubra*), and Pacific dogwood (*Cornus nuttallii*). Native shrubs proposed for HCA mitigation for meeting the 25 shrubs/500 sq. ft. disturbance area criterion include Oregon grape (*Mahonia aquifolium*), kinnikinnick (*Arctostaphylos uva-ursi*), and snowberry (*Symphcarpos albus*). Additional native plant species, along with some ornamental trees and grasses suitable for the park setting, are also included in the planting plan.

(4) All in-stream work in fish-bearing streams shall be done in accordance with the allowable windows for in-water work as designated by ODFW.

Response: The project would not involve work below the OHW level of any stream. This criterion does not apply.

(5) A mitigation maintenance plan shall be included and shall be sufficient to ensure the success of the planting. Compliance with the plan shall be a condition of development approval.

Response: Monitoring and maintenance of the mitigation plantings will be performed for a minimum of two years to ensure a minimum 80% survival rate. An annual report on the survival rate of the mitigation plantings will be prepared and submitted to the City for two years after plant installation.

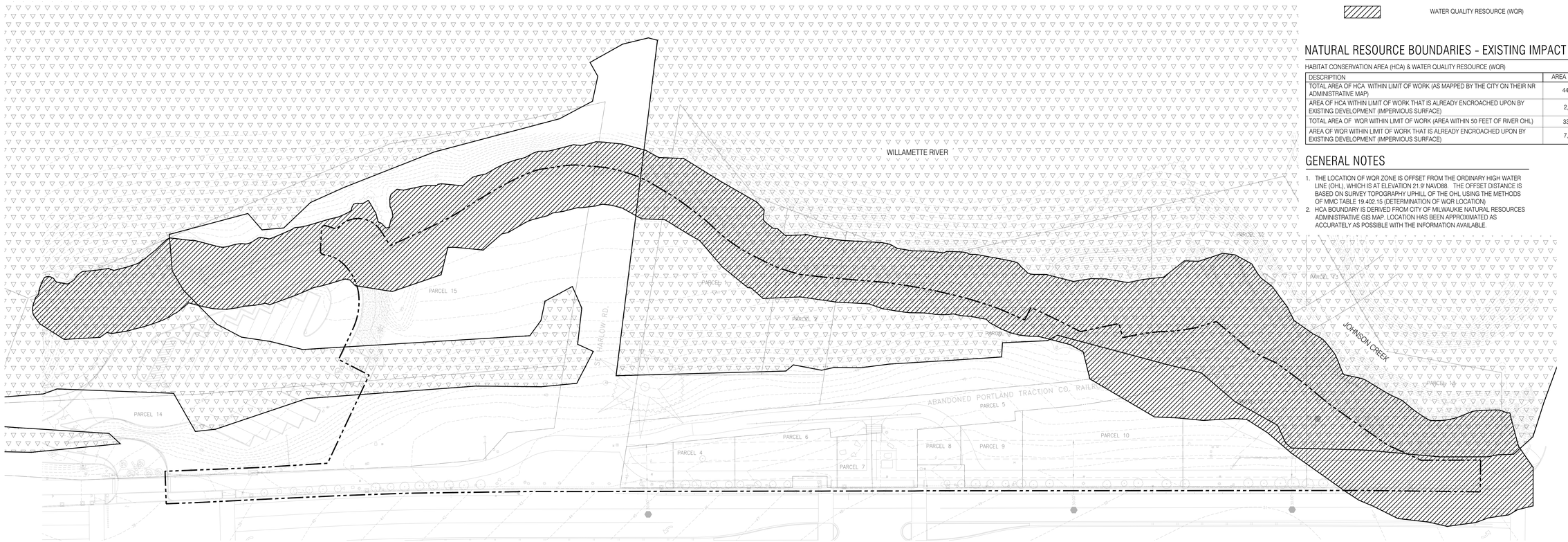
Appendix A
Project Area Map

SOURCE: ESA, 2021; ESRI, 2022; METRO RLIS, 2022

Milwaukie Bay Park Phase 3 Improvements

Figure 1
Project Area

Appendix B
Drawings



LEGEND

- WORK LIMIT LINE
- HABITAT CONSERVATION AREA (HCA)
- WATER QUALITY RESOURCE (WQR)

NATURAL RESOURCE BOUNDARIES - EXISTING IMPACT

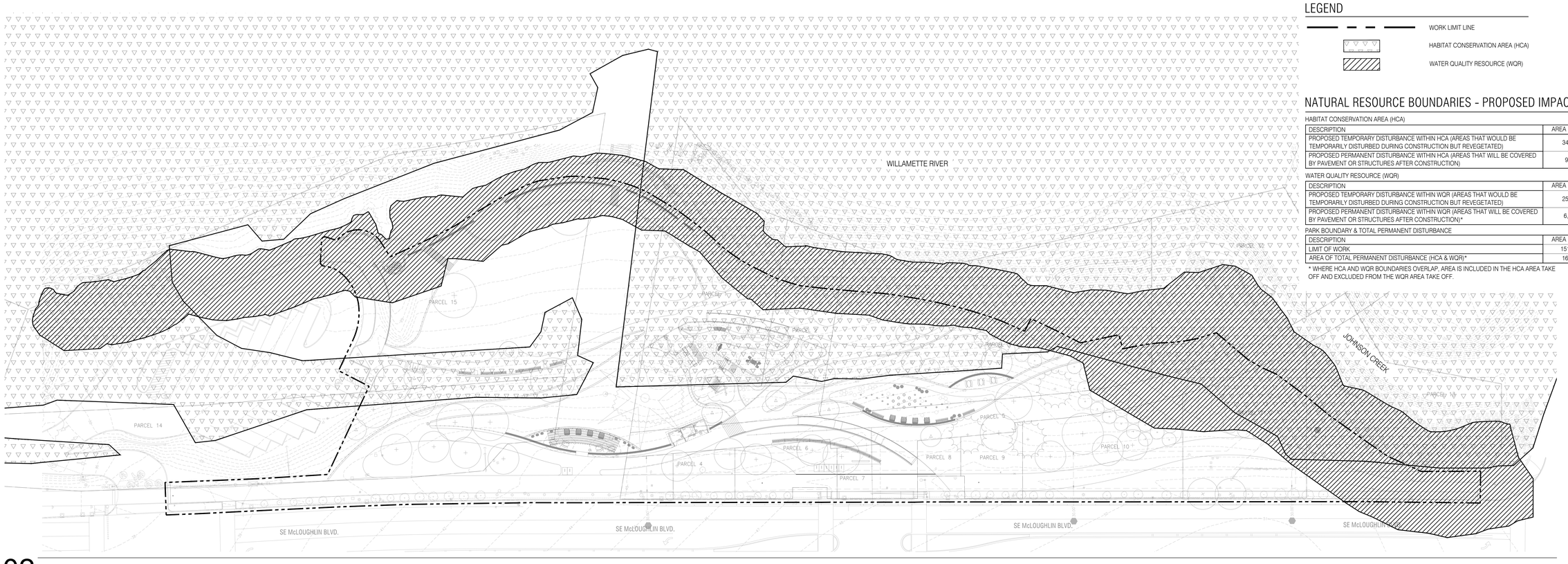
HABITAT CONSERVATION AREA (HCA) & WATER QUALITY RESOURCE (WQR)

DESCRIPTION	AREA (SQ. FT.)
TOTAL AREA OF HCA WITHIN LIMIT OF WORK (AS MAPPED BY THE CITY ON THEIR NR ADMINISTRATIVE MAP)	44,163
AREA OF HCA WITHIN LIMIT OF WORK THAT IS ALREADY ENCROACHED UPON BY EXISTING DEVELOPMENT (IMPERVIOUS SURFACE)	2,462
TOTAL AREA OF WQR WITHIN LIMIT OF WORK (AREA WITHIN 50 FEET OF RIVER OHL)	33758
AREA OF WQR WITHIN LIMIT OF WORK THAT IS ALREADY ENCROACHED UPON BY EXISTING DEVELOPMENT (IMPERVIOUS SURFACE)	7,066

GENERAL NOTES

1. THE LOCATION OF WQR ZONE IS OFFSET FROM THE ORDINARY HIGH WATER LINE (OHL), WHICH IS AT ELEVATION 21.9' NAVD88. THE OFFSET DISTANCE IS BASED ON SURVEY TOPOGRAPHY UPHILL OF THE OHL USING THE METHODS OF MMC TABLE 19.402.15 (DETERMINATION OF WQR LOCATION)
2. HCA BOUNDARY IS DERIVED FROM CITY OF MILWAUKIE NATURAL RESOURCES ADMINISTRATIVE GIS MAP. LOCATION HAS BEEN APPROXIMATED AS ACCURATELY AS POSSIBLE WITH THE INFORMATION AVAILABLE.

01 NATURAL RESOURCE BOUNDARY OVERLAY DIAGRAM - EXISTING CONDITIONS



LEGEND

- WORK LIMIT LINE
- HABITAT CONSERVATION AREA (HCA)
- WATER QUALITY RESOURCE (WQR)

NATURAL RESOURCE BOUNDARIES - PROPOSED IMPACT

HABITAT CONSERVATION AREA (HCA)

DESCRIPTION	AREA (SQ. FT.)
PROPOSED TEMPORARY DISTURBANCE WITHIN HCA (AREAS THAT WOULD BE TEMPORARILY DISTURBED DURING CONSTRUCTION BUT REVEGETATED)	34,492
PROPOSED PERMANENT DISTURBANCE WITHIN HCA (AREAS THAT WILL BE COVERED BY PAVEMENT OR STRUCTURES AFTER CONSTRUCTION)	9671

WATER QUALITY RESOURCE (WQR)

DESCRIPTION	AREA (SQ. FT.)
PROPOSED TEMPORARY DISTURBANCE WITHIN WQR (AREAS THAT WOULD BE TEMPORARILY DISTURBED DURING CONSTRUCTION BUT REVEGETATED)	25,136
PROPOSED PERMANENT DISTURBANCE WITHIN WQR (AREAS THAT WILL BE COVERED BY PAVEMENT OR STRUCTURES AFTER CONSTRUCTION)*	6,808

PARK BOUNDARY & TOTAL PERMANENT DISTURBANCE

DESCRIPTION	AREA (SQ. FT.)
LIMIT OF WORK	151,453
AREA OF TOTAL PERMANENT DISTURBANCE (HCA & WQR)*	16,479

* WHERE HCA AND WQR BOUNDARIES OVERLAP, AREA IS INCLUDED IN THE HCA AREA TAKE OFF AND EXCLUDED FROM THE WQR AREA TAKE OFF.

02 NATURAL RESOURCE BOUNDARY OVERLAY DIAGRAM - PROPOSED SITE PLAN

NOT FOR CONSTRUCTION

SCALE 1"=30'

2.ink Studio | Landscape Architecture
18016 Sixth Avenue, Suite 200
Portland, OR 97203
503.546.4645
www.2inkstudio.com

REGISTERED
JONATHON REAVER
2/16/2016
OREGON
LANDSCAPE ARCHITECT

MILWAUKIE BAY PARK

100% Design Development

project address

DRAWN BY: JW
SCALE: AS NOTED
DATE: 06/03/2022

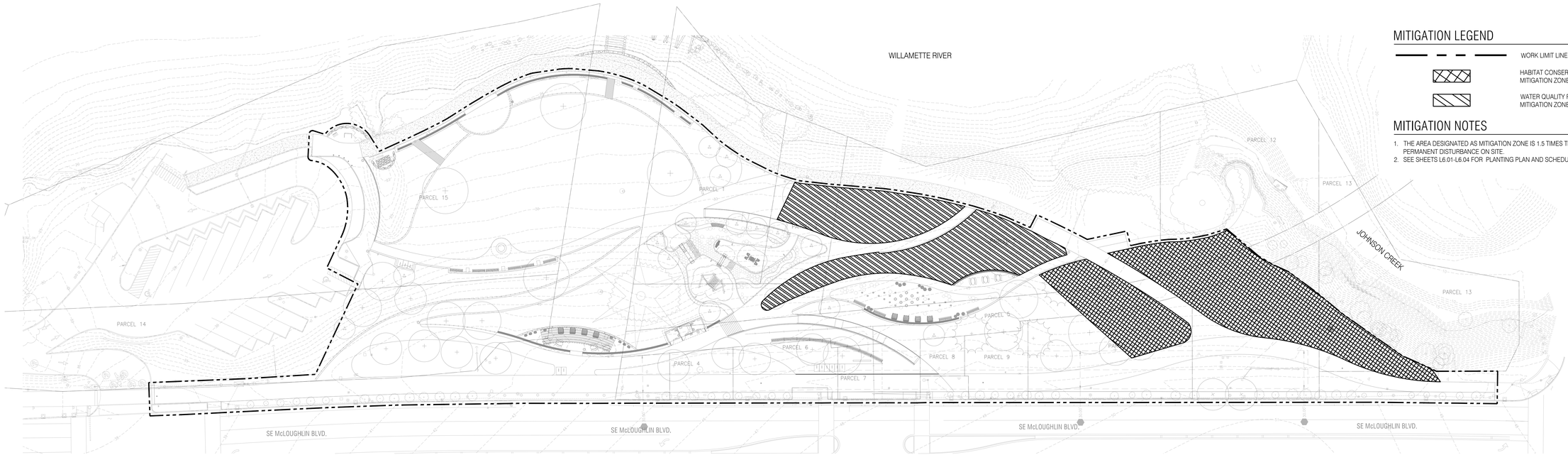
REVISIONS		
DATE	DESCRIPTION	BY

NATURAL RESOURCE BOUNDARIES

L6.00A

ONE INCH

DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



MITIGATION LEGEND

- WORK LIMIT LINE
- HABITAT CONSERVATION AREA (HCA) MITIGATION ZONE ~14,506 SF
- WATER QUALITY RESOURCE (WQR) MITIGATION ZONE ~10,212 SF

MITIGATION NOTES

1. THE AREA DESIGNATED AS MITIGATION ZONE IS 1.5 TIMES THE AREA OF PERMANENT DISTURBANCE ON SITE.
2. SEE SHEETS L6.01-L6.04 FOR PLANTING PLAN AND SCHEDULE.

03 NATURAL RESOURCE MITIGATION ZONE DIAGRAM

NOT FOR CONSTRUCTION

SCALE 1"=30'

2.ink Studio | Landscape Architecture
1816 NE Sixth Avenue, Suite 200
Portland, OR 97232
503.546.4645
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW

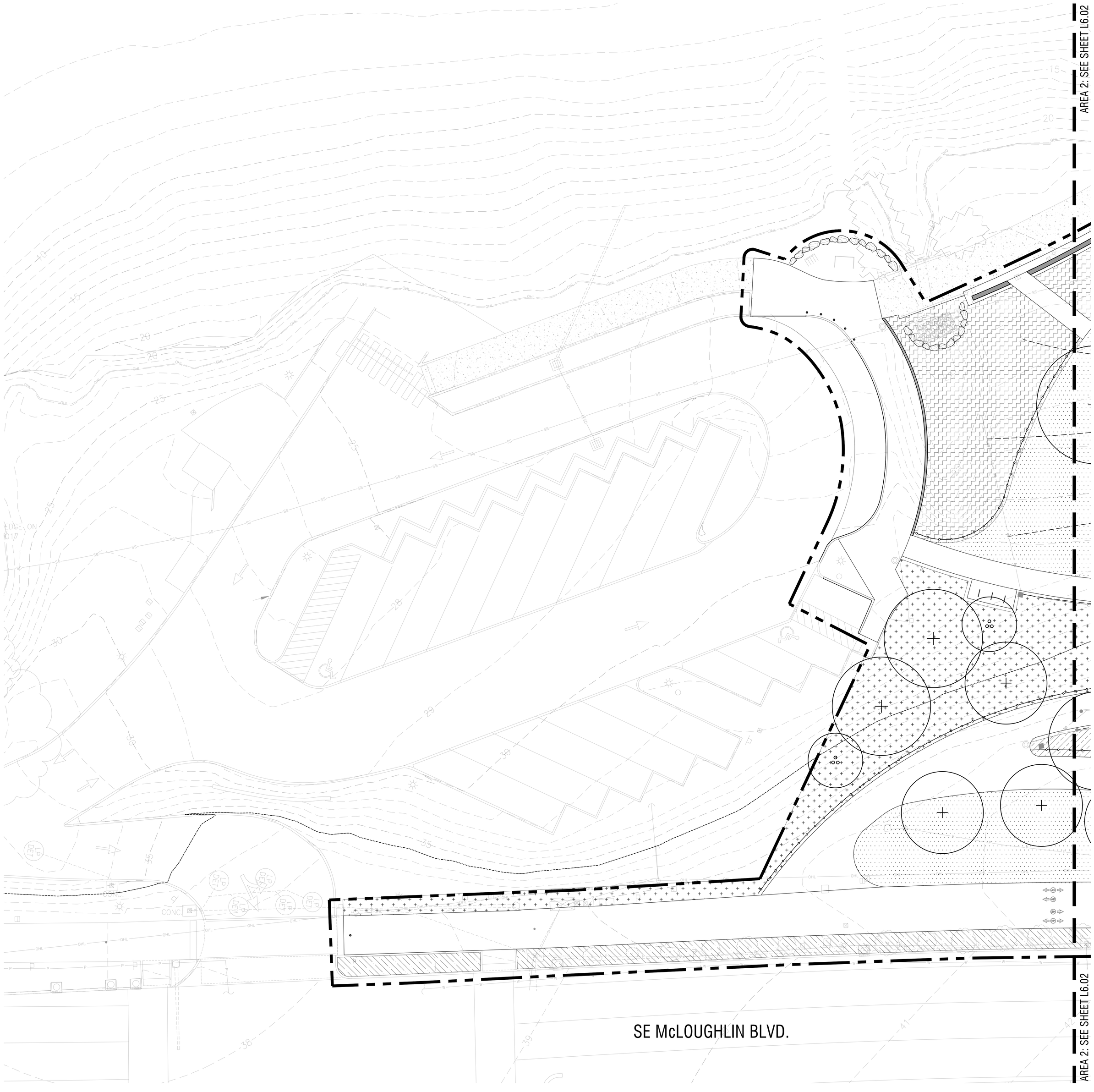
REVISIONS

DATE	DESCRIPTION	BY

MITIGATION PLAN

L6.00B

ONE INCH [DRAWING SET SCALE]
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CERCIDIPHYLLUM JAPONICUM KATSURA	TBD	AS SHOWN	TBD
	RHAMNUS PURSHIANA*(M) CASCARA BUCKTHORN	1/2 IN CALIPER	12' O.C.	32
	QUERCUS GARRYANA* OREGON WHITE OAK	TBD	AS SHOWN	TBD
	ALNUS RUBRA*(M) RED ALDER	1/2 IN CALIPER	12' O.C.	32
	INCENSE CEDAR CALOCEDRUS DECURRENS	TBD	AS SHOWN	TBD
	BETULA NIGRA RIVER BIRCH	TBD	AS SHOWN	TBD
	CORNUS NUTTALLII*(M) PACIFIC DOGWOOD	1/2 IN CALIPER	12' O.C.	33
	ACER MACROPHYLLUM* BIG LEAF MAPLE	TBD	AS SHOWN	TBD
	QUERCUS VELUTINA BLACK OAK	TBD	AS SHOWN	TBD
	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
		QUANTITY OF TREES FOR HCA MITIGATION EA		97
			TOTAL EA	165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	POLYSTICHUM MUNITUM** SWORD FERN	1 GAL.	3' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	1 GAL.	4' O.C.	170
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	1 GAL.	8' O.C.	170
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	1' O.C.	TBD
	ERIOPHYLLUM LANATUM** WOOLY SUNFLOWER	1 GAL.	3' O.C.	TBD
	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
	MAHONIA 'SOFT CARESS' PP20183 SOFT CARESS' MAHONIA	TBD	AS SHOWN	TBD
	JUNIPERUS CONFERTA PACIFIC BLUE SHORE JUNIPER	TBD	AS SHOWN	TBD
	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	TBD	AS SHOWN	TBD
			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	WILDFLOWER SEED MIX** SPECIES VARY	N/A	N/A	TBD
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	TBD	TBD
	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
	FESTUCA SUBULATA** BEARDED FESCUE	1 GAL.	5' O.C.	TBD
	ELYMUS GLAUCUS** BLUE WILDRYE	1 GAL.	5' O.C.	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	1 GAL.	5' O.C.	TBD
	POA SECUNDA** PINE BLUEGRASS	1 GAL.	5' O.C.	TBD
	CAMASSIA QUAMASH** COMMON CAMAS	1 GAL.	5' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	TBD	5' O.C.	508
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	TBD	8' O.C.	217
			TOTAL SQ FT	16,802
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		725

RIPARIAN

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ELYMUS GLAUCUS** BLUE WILD RYE	TBD	2' O.C.	TBD
	ISANTI RED-OSIER DOGWOOD CORNUS SERICEA 'ISANTI'	TBD	12' O.C.	TBD
	LUPINUS BICOLOR** MINIATURE LUPINE	TBD	AS SHOWN	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	TBD	1' O.C.	TBD
	IRIS TENAX** OREGON IRIS	TBD	1' O.C.	TBD
	JUNCUS PATENS 'ELK BLUE'** ELK BLUE CALIFORNIA GRAY RUSH	TBD	2' O.C.	TBD
	NATIVE SWALE MIX** MEADOW BARLEY, CALIFORNIA OATGRASS, BLUE WILDRYE, ROEMERS FESCUE, TUFTED HAIRGRASS, SPIKE BENT GRASS, WATER FOXTAIL, SLENDER HAIRGRASS	N/A	N/A	TBD
			TOTAL SQ FT	6,717

TURF

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	FESTUCA ARUNDINACEA TALL FESCUE	TBD	N/A	TBD
			TOTAL SQ FT	25,618

ORNAMENTAL INFILL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS, SPECIES TBD (MATCH EXISTING)	TBD	TBD	TBD
			TOTAL SQ FT	5,982 (TOTAL) 1,794 (30%)

* DESIGNATES TREES IDENTIFIED ON 'MILWAUKIE NATIVE TREE LIST'
**DESIGNATES PLANTS IDENTIFIED AS NATIVE ON 'PORTLAND PLANT LIST'
(M) DESIGNATES TREES REQUIRED FOR NATURAL RESOURCE MITIGATION

SCALE 1"=10'

NOT FOR CONSTRUCTION

ONE INCH | DRAWING SET SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

2.ink Studio | Landscape Architecture
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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK
100% Design Development
project address

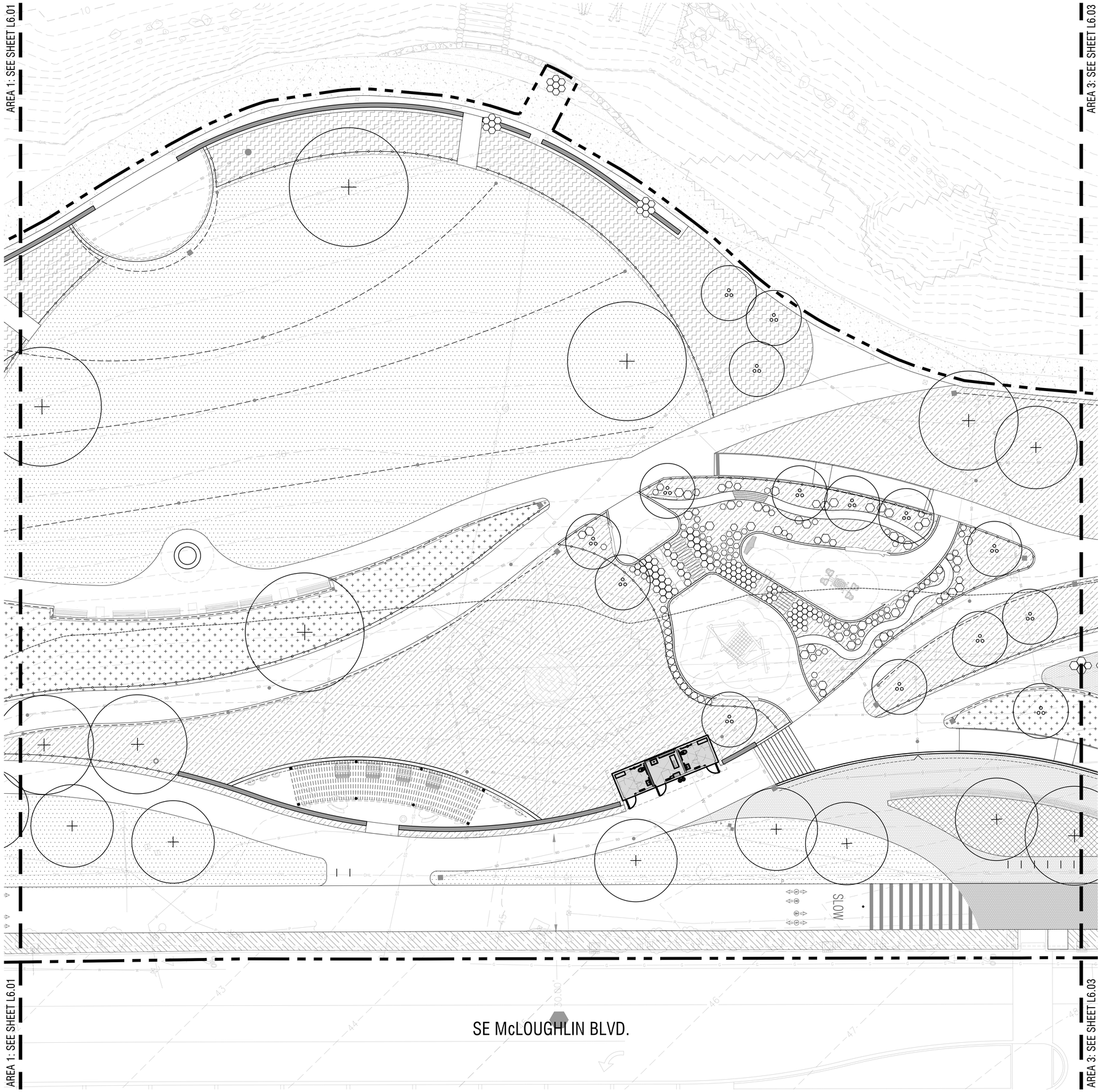
DRAWN BY: JW/JB
SCALE: AS NOTED
DATE: 06/03/2022

REVISIONS

DATE	DESCRIPTION	BY

PLANTING PLAN
AREA 1

L6.01



PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CERCIDIPHYLLUM JAPONICUM KATSURA	TBD	AS SHOWN	TBD
	RHAMNUS PURSHIANA*(M) CASCARA BUCKTHORN	1/2 IN CALIPER	12' O.C.	32
	QUERCUS GARRYANA* OREGON WHITE OAK	TBD	AS SHOWN	TBD
	ALNUS RUBRA*(M) RED ALDER	1/2 IN CALIPER	12' O.C.	32
	INCENSE CEDAR CALOCEDRUS DECURRENS	TBD	AS SHOWN	TBD
	BETULA NIGRA RIVER BIRCH	TBD	AS SHOWN	TBD
	CORNUS NUTTALLII*(M) PACIFIC DOGWOOD	1/2 IN CALIPER	12' O.C.	33
	ACER MACROPHYLLUM* BIG LEAF MAPLE	TBD	AS SHOWN	TBD
	QUERCUS VELUTINA BLACK OAK	TBD	AS SHOWN	TBD
	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
		QUANTITY OF TREES FOR HCA MITIGATION EA		97
		TOTAL EA		165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	POLYSTICHUM MUNITUM** SWORD FERN	1 GAL.	3' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	1 GAL.	4' O.C.	170
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	1 GAL.	8' O.C.	170
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	1' O.C.	TBD
	ERIOPHYLLUM LANATUM** WOOLY SUNFLOWER	1 GAL.	3' O.C.	TBD
	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
	MAHONIA 'SOFT CARESS' PP20183 'SOFT CARESS' MAHONIA	TBD	AS SHOWN	TBD
	JUNIPERUS CONFERTA PACIFIC BLUE SHORE JUNIPER	TBD	AS SHOWN	TBD
	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	TBD	AS SHOWN	TBD
			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	WILDFLOWER SEED MIX** SPECIES VARY	N/A	N/A	TBD
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	TBD	TBD
	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
	FESTUCA SUBULATA** BEARDED FESCUE	1 GAL.	5' O.C.	TBD
	ELYMUS GLAUCUS** BLUE WILDRYE	1 GAL.	5' O.C.	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	1 GAL.	5' O.C.	TBD
	POA SECUNDA** PINE BLUEGRASS	1 GAL.	5' O.C.	TBD
	CAMASSIA QUAMASH** COMMON CAMAS	1 GAL.	5' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	TBD	5' O.C.	508
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	TBD	8' O.C.	217
			TOTAL SQ FT	16,802
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		725

RIPARIAN

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ELYMUS GLAUCUS** BLUE WILD RYE	TBD	2' O.C.	TBD
	ISANTI RED-OSIER DOGWOOD CORNUS SERICEA 'ISANTI'	TBD	12' O.C.	TBD
	LUPINUS BICOLOR** MINIATURE LUPINE	TBD	AS SHOWN	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	TBD	1' O.C.	TBD
	IRIS TENAX** OREGON IRIS	TBD	1' O.C.	TBD
	JUNCUS PATENS 'ELK BLUE'** ELK BLUE CALIFORNIA GRAY RUSH	TBD	2' O.C.	TBD
	NATIVE SWALE MIX** MEADOW BARLEY, CALIFORNIA OATGRASS, BLUE WILDRYE, ROEMER'S FESCUE, TUFTED HAIRGRASS, SPIKE BENT GRASS, WATER FOXTAIL, SLENDER HAIRGRASS	N/A	N/A	TBD
			TOTAL SQ FT	6,717

TURF

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	FESTUCA ARUNDINACEA TALL FESCUE	TBD	N/A	TBD
			TOTAL SQ FT	25,618

ORNAMENTAL INFILL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS, SPECIES TBD (MATCH EXISTING)	TBD	TBD	TBD
			TOTAL SQ FT	5,982 (TOTAL) 1,794 (30%)

* DESIGNATES TREES IDENTIFIED ON 'MILWAUKIE NATIVE TREE LIST'
**DESIGNATES PLANTS IDENTIFIED AS NATIVE ON 'PORTLAND PLANT LIST'
(M) DESIGNATES TREES REQUIRED FOR NATURAL RESOURCE MITIGATION

NOT FOR CONSTRUCTION

SCALE 1"=10'
0 5 10 20 30 50FT

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REGISTERED LANDSCAPE ARCHITECT
OREGON
EXPIRATION RENEWAL DATE

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW/JB

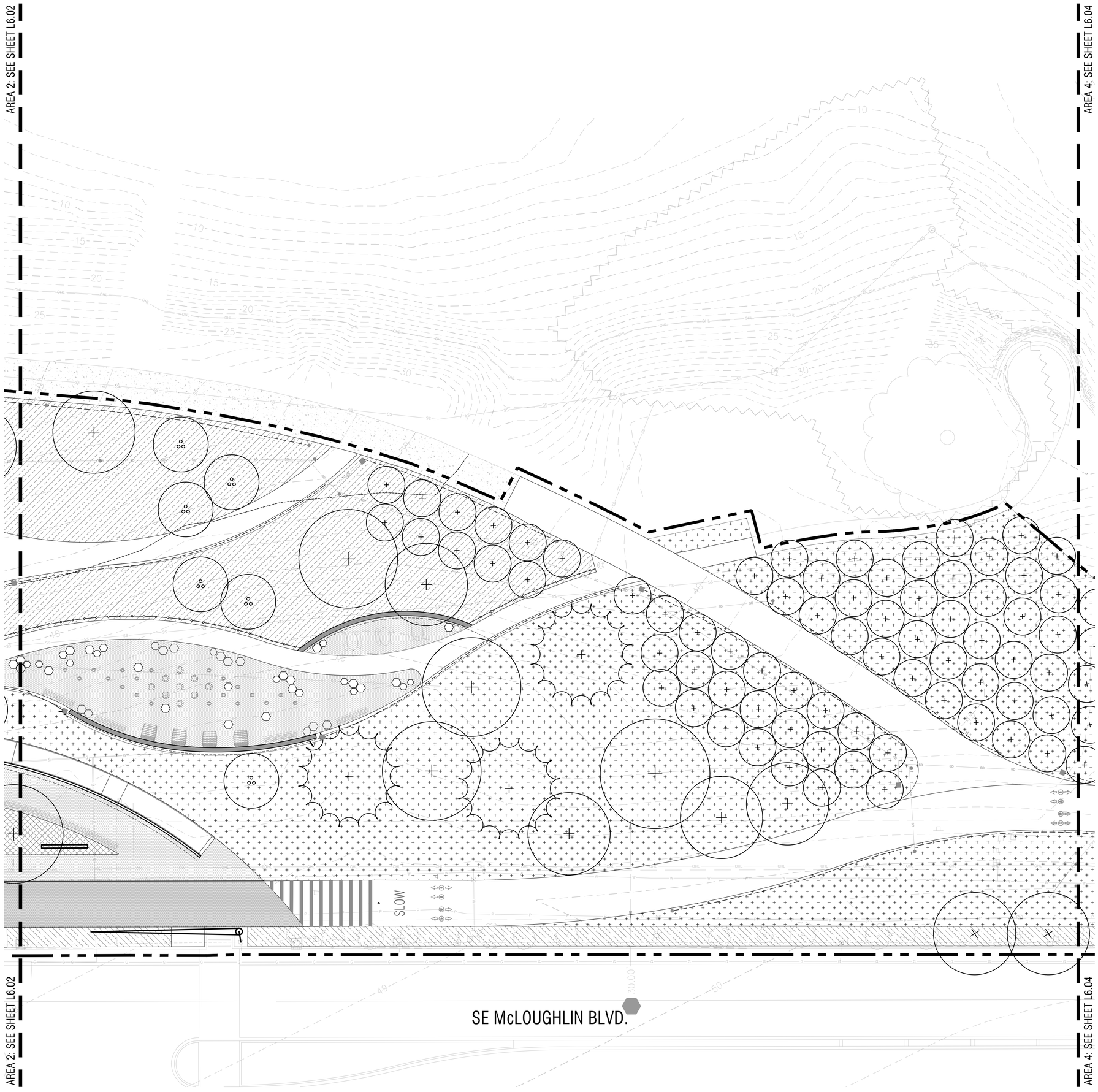
REVISIONS

DATE	DESCRIPTION	BY

PLANTING PLAN
AREA 2

L6.02

ONE INCH
[DRAWING SET] SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.



PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CERCIDIPHYLLUM JAPONICUM' KATSURA	TBD	AS SHOWN	TBD
	RHAMNUS PURSHIANA*(M) CASCARA BUCKTHORN	1/2 IN CALIPER	12' O.C.	32
	QUERCUS GARRYANA* OREGON WHITE OAK	TBD	AS SHOWN	TBD
	ALNUS RUBRA*(M) RED ALDER	1/2 IN CALIPER	12' O.C.	32
	INCENSE CEDAR CALOCEDRUS DECURRENS	TBD	AS SHOWN	TBD
	BETULA NIGRA RIVER BIRCH	TBD	AS SHOWN	TBD
	CORNUS NUTTALLII*(M) PACIFIC DOGWOOD	1/2 IN CALIPER	12' O.C.	33
	ACER MACROPHYLLUM* BIG LEAF MAPLE	TBD	AS SHOWN	TBD
	QUERCUS VELUTINA BLACK OAK	TBD	AS SHOWN	TBD
	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
		QUANTITY OF TREES FOR HCA MITIGATION EA		97
		TOTAL EA		165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	POLYSTICHUM MUNITUM** SWORD FERN	1 GAL.	3' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	1 GAL.	4' O.C.	170
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	1 GAL.	8' O.C.	170
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	1' O.C.	TBD
	ERIOPHYLLUM LANATUM** WOOLY SUNFLOWER	1 GAL.	3' O.C.	TBD
	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
	MAHONIA 'SOFT CARESS' PP20183 'SOFT CARESS' MAHONIA	TBD	AS SHOWN	TBD
	JUNIPERUS CONFERTA PACIFIC BLUE SHORE JUNIPER	TBD	AS SHOWN	TBD
	PENNISETUM ALOPECUROIDES 'HAMELN' HAMELN FOUNTAIN GRASS	TBD	AS SHOWN	TBD
			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	WILDFLOWER SEED MIX** SPECIES VARY	N/A	N/A	TBD
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	TBD	TBD
	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
	FESTUCA SUBULATA** BEARDED FESCUE	1 GAL.	5' O.C.	TBD
	ELYMUS GLAUCUS** BLUE WILDRYE	1 GAL.	5' O.C.	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	1 GAL.	5' O.C.	TBD
	POA SECUNDA** PINE BLUEGRASS	1 GAL.	5' O.C.	TBD
	CAMASSIA QUAMASH** COMMON CAMAS	1 GAL.	5' O.C.	TBD
	MAHONIA AQUIFOLIUM** OREGON GRAPE	TBD	5' O.C.	508
	ARCTOSTAPHYLOS UVA-URSI** KINNIKINNICK	TBD	8' O.C.	217
			TOTAL SQ FT	16,802
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		725

RIPARIAN

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ELYMUS GLAUCUS** BLUE WILD RYE	TBD	2' O.C.	TBD
	ISANTI RED-OSIER DOGWOOD CORNUS SERICEA 'ISANTI'	TBD	12' O.C.	TBD
	LUPINUS BICOLOR** MINIATURE LUPINE	TBD	AS SHOWN	TBD
	FESTUCA ROEMERI** ROEMER'S FESCUE	TBD	1' O.C.	TBD
	IRIS TENAX** OREGON IRIS	TBD	1' O.C.	TBD
	JUNCUS PATENS 'ELK BLUE'** ELK BLUE CALIFORNIA GRAY RUSH	TBD	2' O.C.	TBD
	NATIVE SWALE MIX** MEADOW BARLEY, CALIFORNIA OATGRASS, BLUE WILDRYE, ROEMER'S FESCUE, TUFTED HAIRGRASS, SPIKE BENT GRASS, WATER FOXTAIL, SLENDER HAIRGRASS	N/A	N/A	TBD
			TOTAL SQ FT	6,717

TURF

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	FESTUCA ARUNDINACEA TALL FESCUE	TBD	N/A	TBD
			TOTAL SQ FT	25,618

ORNAMENTAL INFILL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS, SPECIES TBD (MATCH EXISTING)	TBD	TBD	TBD
			TOTAL SQ FT	5,982 (TOTAL) 1,794 (30%)

* DESIGNATES TREES IDENTIFIED ON 'MILWAUKIE NATIVE TREE LIST'
**DESIGNATES PLANTS IDENTIFIED AS NATIVE ON 'PORTLAND PLANT LIST'
(M) DESIGNATES TREES REQUIRED FOR NATURAL RESOURCE MITIGATION

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SCALE 1"=10'

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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK
100% Design Development
project address
DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW/JB

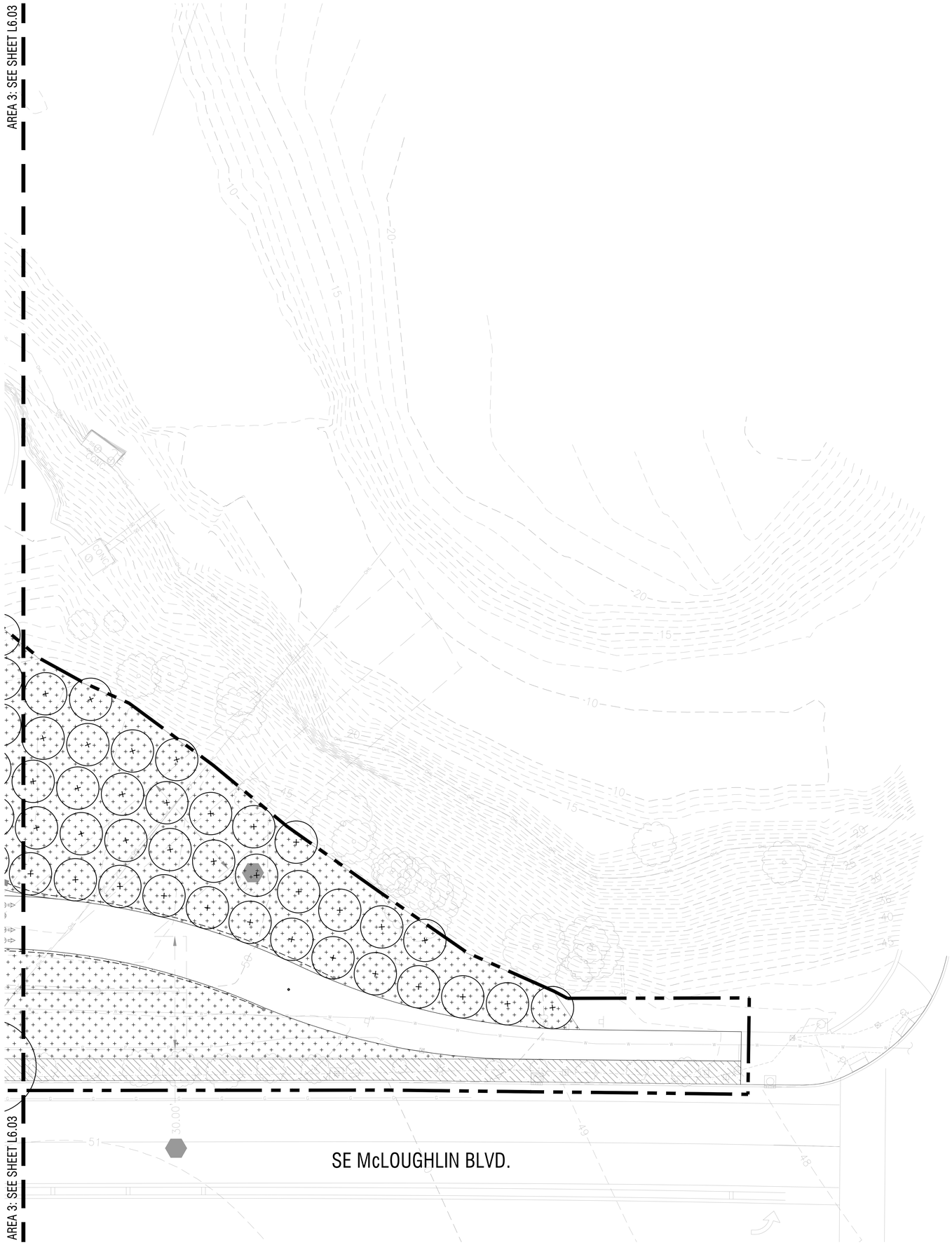
REVISIONS

DATE	DESCRIPTION	BY

PLANTING PLAN
AREA 3

L6.03

DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
ONE INCH



NOT FOR CONSTRUCTION

ONE INCH | IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS. | DRAWING SET SCALE

PLANTING SCHEDULE

TREES

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CERCIDIPHYLLUM JAPONICUM KATSURA	TBD	AS SHOWN	TBD
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	QUERCUS CHRYSOLEPIS CANYON LIVE OAK	TBD	AS SHOWN	TBD
	FRAXINUS LATIFOLIA* OREGON ASH	TBD	AS SHOWN	TBD
	KOUSA DOGWOOD CHINESE DOGWOOD	TBD	AS SHOWN	TBD
		QUANTITY OF TREES FOR HCA MITIGATION EA		97
		TOTAL EA		165

UPLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
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	SYMPHORICARPOS ALBUS** COMMON SNOWBERRY	1 GAL.	5' O.C.	171
	ACHILLEA MILLEFOLIUM** COMMON YARROW	1 GAL.	3' O.C.	TBD
			TOTAL SQ FT	21,975
		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		511

ORNAMENTAL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	CALAMAGROSTIS × ACUTIFLORA FEATHER REED GRASS	TBD	AS SHOWN	TBD
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			TOTAL SQ FT	960

GRASSLAND

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	WILDFLOWER SEED MIX** SPECIES VARY	N/A	N/A	TBD
	FESTUCA CALIFORNICA** CALIFORNIA FESCUE	1 GAL.	TBD	TBD
	DESCHAMPSIA CESPITOSA** TUFTED HAIRGRASS	1 GAL.	5' O.C.	TBD
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		APPROXIMATE QUANTITY OF CONTAINER SHRUBS FOR MITIGATION EA		725

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SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
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	NATIVE SWALE MIX** MEADOW BARLEY, CALIFORNIA OATGRASS, BLUE WILDRYE, ROEMER'S FESCUE, TUFTED HAIRGRASS, SPIKE BENT GRASS, WATER FOXTAIL, SLENDER HAIRGRASS	N/A	N/A	TBD
			TOTAL SQ FT	6,717

TURF

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	FESTUCA ARUNDINACEA TALL FESCUE	TBD	N/A	TBD
			TOTAL SQ FT	25,618

ORNAMENTAL INFILL

SYM.	BOTANICAL NAME / COMMON NAME	SIZE	SPACING	QUANTITY
	ORNAMENTAL PLANTING - 30% INFILL AROUND EX. PLANTINGS, SPECIES TBD (MATCH EXISTING)	TBD	TBD	TBD
			TOTAL SQ FT	5,982 (TOTAL) 1,794 (30%)

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**DESIGNATES PLANTS IDENTIFIED AS NATIVE ON 'PORTLAND PLANT LIST'
(M) DESIGNATES TREES REQUIRED FOR NATURAL RESOURCE MITIGATION

SCALE 1"= 10'
0 5 10 20 30 50FT

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REGISTERED
6/48
JONATHAN BEAVER
OREGON
LANDSCAPE ARCHITECT

MILWAUKIE BAY PARK

100% Design Development

project address

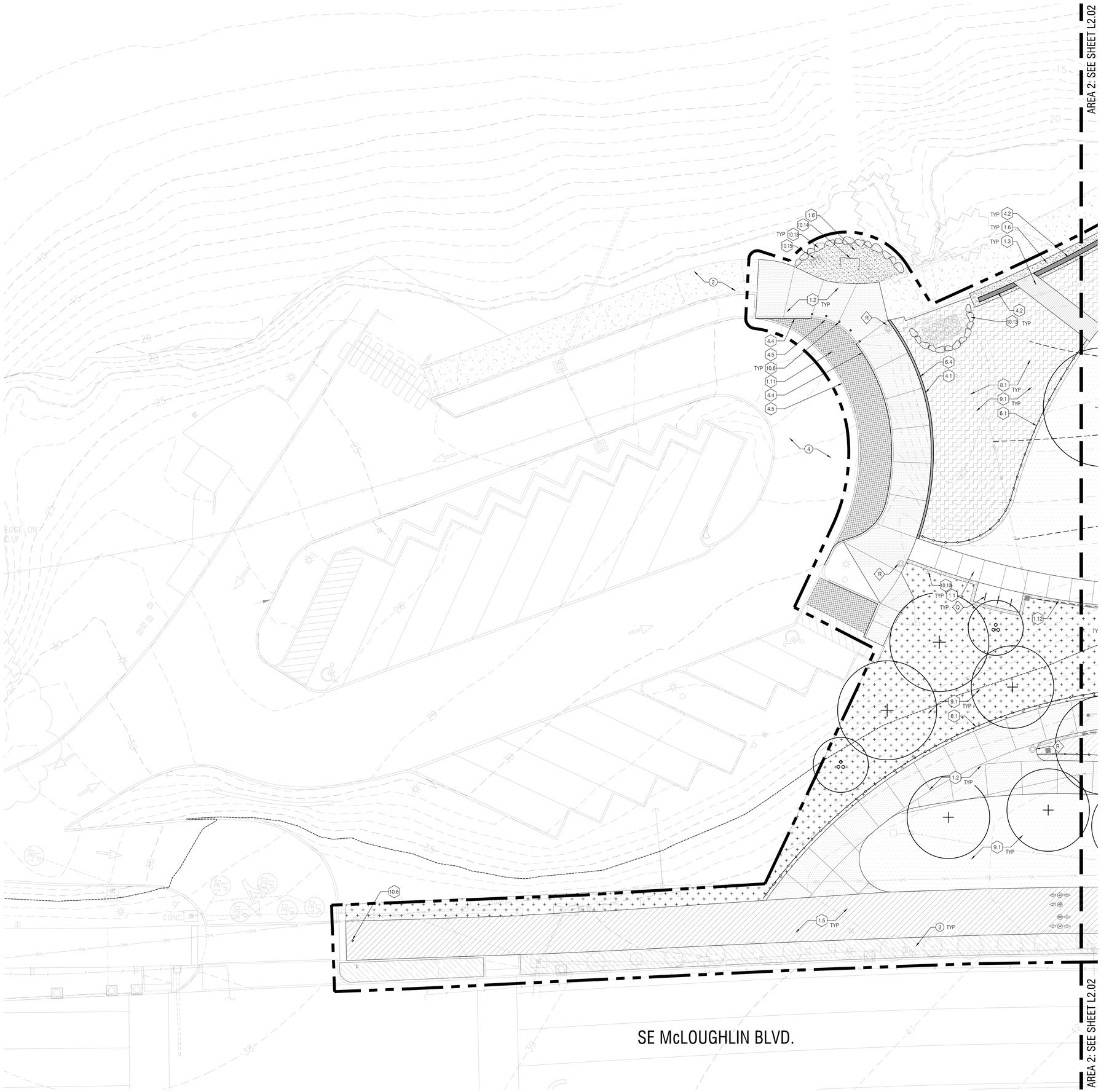
DATE: 06/03/2022 | SCALE: AS NOTED | DRAWN BY: JW/JB

REVISIONS

DATE	DESCRIPTION	BY

PLANTING PLAN
AREA 4

L6.04



LEGEND

- WORK LIMIT LINE
- MATCHLINE
- PROPOSED SITE TREE
- PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2"-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

1. ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

KEYNOTES

1. JUNCTION LOCATION TBD.
2. EXISTING CONCRETE PAVING TO REMAIN.
3. EXISTING PLANTING AREA TO REMAIN.
4. EXISTING ASPHALTIC CONCRETE PAVING TO REMAIN.

SCALE 1"=10'

NOT FOR CONSTRUCTION

ONE INCH DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

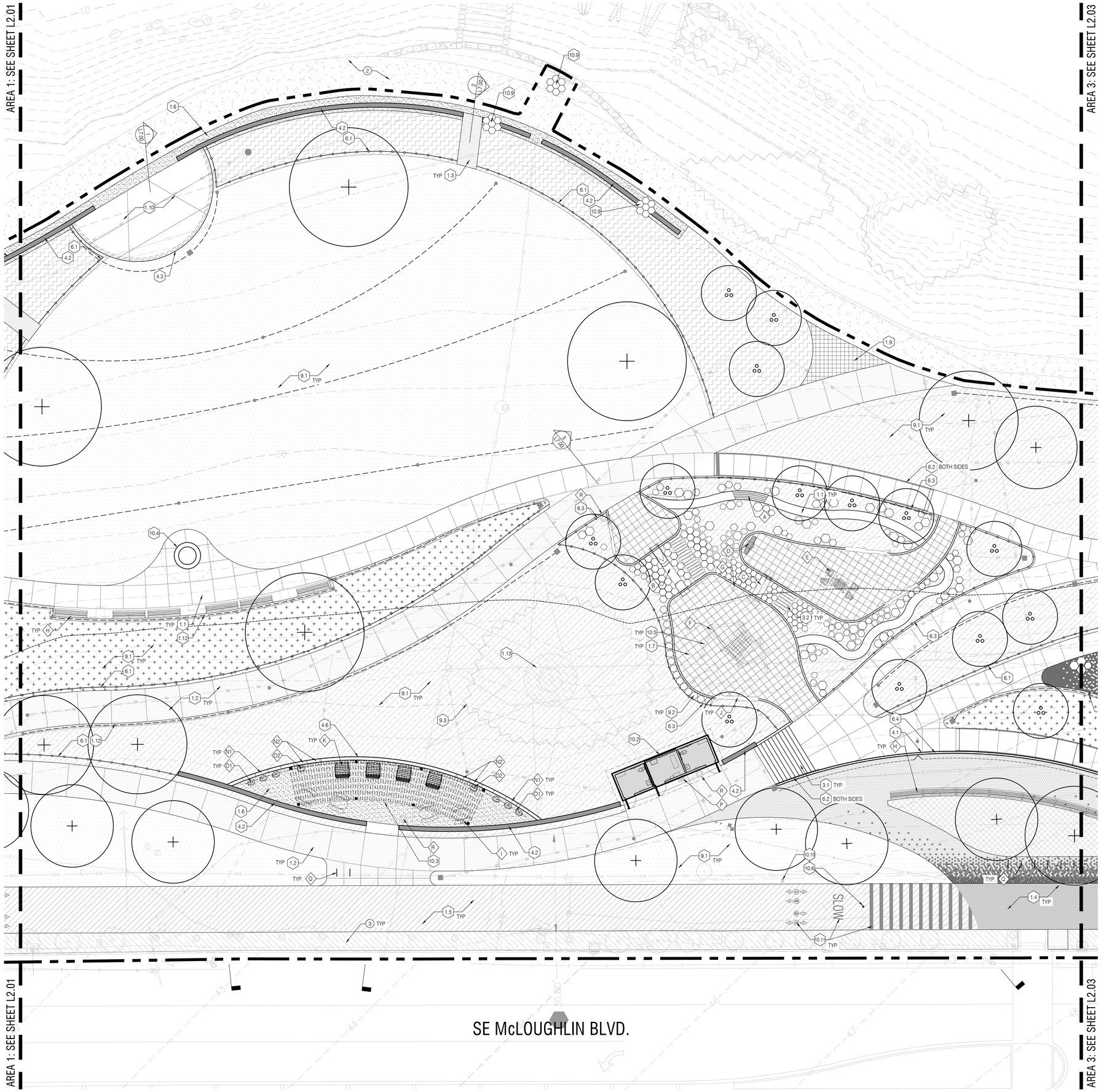
DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW

REVISIONS

DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 1

L2.01



LEGEND

- WORK LIMIT LINE
- MATCHLINE
- PROPOSED SITE TREE
- PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2"-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

1. ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

KEYNOTES

1. JUNCTION LOCATION TBD.
2. EXISTING CONCRETE PAVING TO REMAIN.
3. EXISTING PLANTING AREA TO REMAIN.
4. EXISTING ASPHALTIC CONCRETE PAVING TO REMAIN.

NOT FOR CONSTRUCTION

SCALE 1"=10'

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Portland, OR 97232
503.546.4645
www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
JONATHON BAKER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 | SCALE: AS NOTED | DRAWN BY: JW

REVISIONS

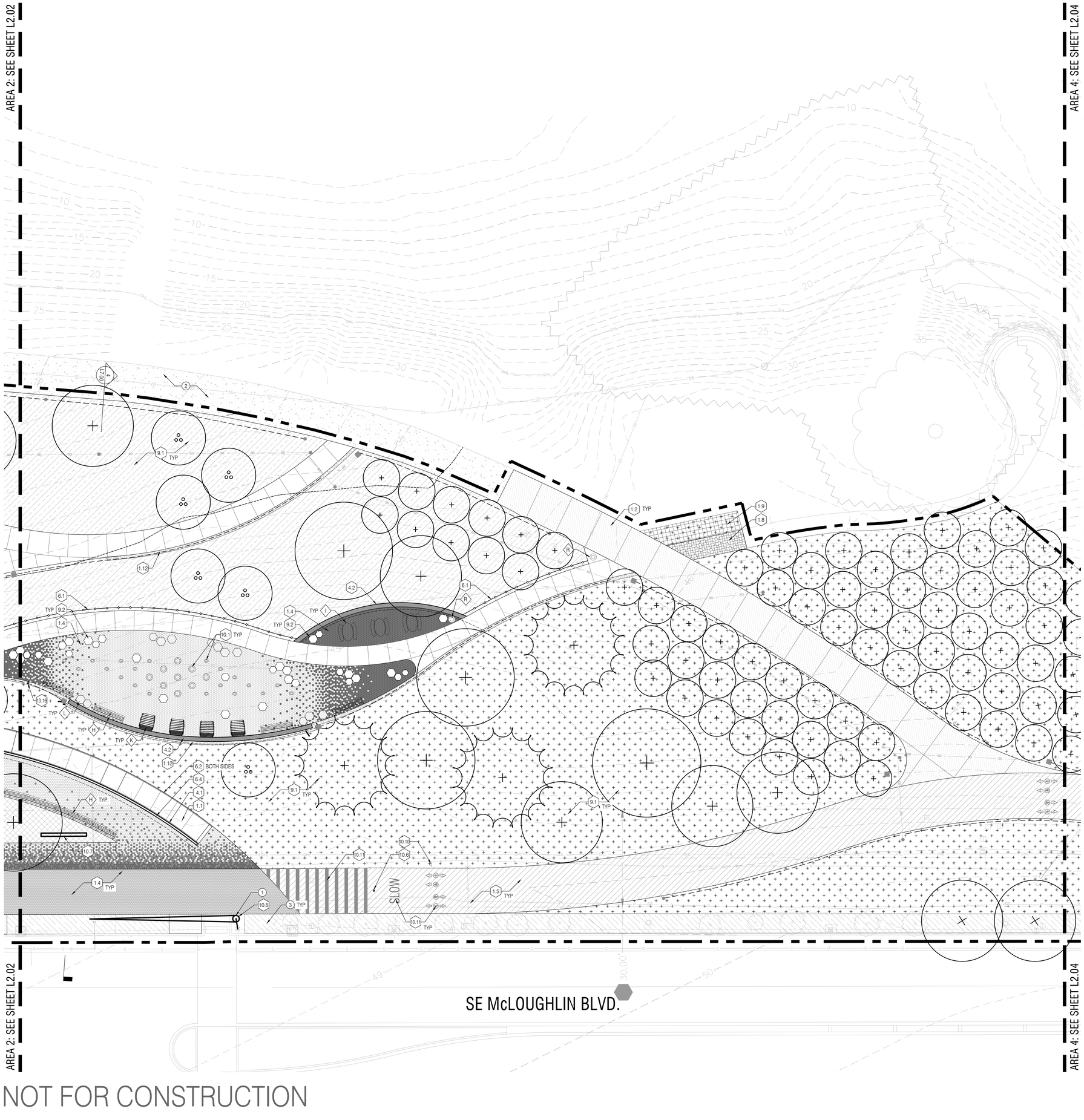
DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 2

L2.02

ONE INCH
DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

AREA 2: SEE SHEET L2.02



AREA 4: SEE SHEET L2.04

LEGEND

- WORK LIMIT LINE
- MATCHLINE
- PROPOSED SITE TREE
- PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2"-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

1. ALL PLANTING AREAS SHALL BE FULLY IRRIGATED, SEE IRRIGATION PLANS AND NARRATIVE FOR MORE INFORMATION.

KEYNOTES

1. JUNCTION LOCATION TBD.
2. EXISTING CONCRETE PAVING TO REMAIN.
3. EXISTING PLANTING AREA TO REMAIN.
4. EXISTING ASPHALTIC CONCRETE PAVING TO REMAIN.

AREA 2: SEE SHEET L2.02

AREA 4: SEE SHEET L2.04

NOT FOR CONSTRUCTION

SCALE 1"= 10'

0 5 10 20 30 50FT

ONE INCH — DRAWING SET SCALE
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.

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www.2inkstudio.com

REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
5/18/2021
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address:

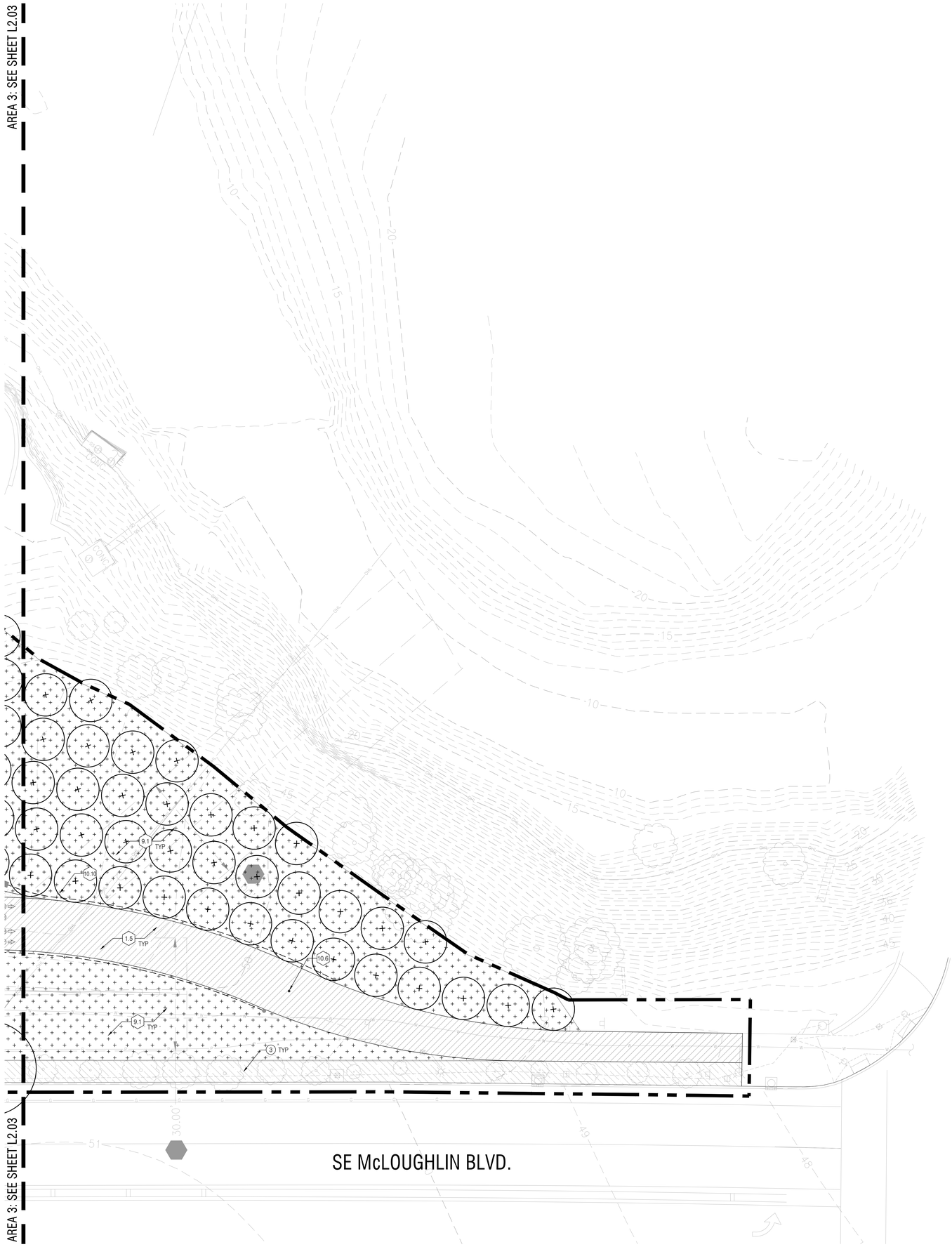
DATE: 06/03/2022
SCALE: AS NOTED
DRAWN BY: JW

REVISIONS

DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 3

L2.03



NOT FOR CONSTRUCTION

LEGEND

WORK LIMIT LINE

MATCHLINE

PROPOSED SITE TREE

PLANTING AREA

DETAIL KEYNOTES

1.0 PAVEMENT, RAMPS, CURBS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
1.1	CONCRETE PAVING - PEDESTRIAN	01/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.2	CONCRETE PAVING - VEHICULAR	02/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.3	PEDESTRIAN BRIDGE OVER BIOSWALE	06/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.4	CONCRETE UNIT PAVERS	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.5	TROLLEY TRAIL PAVING - PERMEABLE ASPHALTIC CONCRETE	04/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.6	GRAVEL PAVING	05/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.7	RUBBER TILE PLAY SURFACING	08/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.8	PAVERS - MATCH KLEIN POINT	03/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.9	REINFORCED TURF PAVING	07/L7.20	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.10	CONCRETE STAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.11	MATCH EXISTING PARKING LOT PAVERS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.12	RIP RAP - 2"-4" RIVER ROCK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
1.13	BARK MULCH	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

2.0 JOINTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
2.1	SCORE JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.2	EXPANSION JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
2.3	DOWEL JOINT, LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

3.0 STEPS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
3.1	CONCRETE STAIR	06/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
3.2	STONE STEPS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

4.0 WALLS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
4.1	BOARD FORMED CONCRETE RETAINING WALL	10/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.2	BOARD FORMED CONCRETE SEAT WALL	01/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.3	BOARD FORMED CONCRETE KNEE WALL AT STAGE	02/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.4	6" WIDE RAISED CURB	04/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.5	6" WIDE FLUSH CURB	05/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
4.6	BOARD FORMED CONCRETE LOW KNEE WALL	03/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

5.0 SITE FURNISHINGS

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
5.1	SEE FURNISHINGS SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X

6.0 RAILINGS, BARRIERS, FENCING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
6.1	GOOSE & LANDSCAPE FENCING	2/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.2	HANDRAIL	07,08/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.3	PLAYGROUND FENCING	01/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
6.4	GUARDRAIL	09/L7.30	X/LX.X, X/LX.X	X/LX.X, X/LX.X

7.0 LANDSCAPE LIGHTING

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
7.1	NOT SHOWN, SEE ELECTRICAL PLAN	SEE ELECTRICAL	X/LX.X, X/LX.X	X/LX.X, X/LX.X

8.0 DRAINAGE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
8.1	DRAINAGE SWALE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

9.0 PLANTING, SOILS, LANDSCAPE

#	DESCRIPTION	DETAIL / SHEET	RELATED DETAILS	SPEC SECTIONS
9.1	PLANTING AREA	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.2	COLUMNAR BASALT LANDSCAPE BOULDER	01/L7.51	X/LX.X, X/LX.X	X/LX.X, X/LX.X
9.3	EXISTING TREE(S) TO REMAIN (CANOPY LINE SHOWN)	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

10.0 MISCELLANEOUS SITE FEATURES

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10.1	INTERACTIVE WATER FEATURE	01/L7.60	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.2	RESTROOM BUILDING	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.3	OVERHEAD SHADE TRELLIS	SEE ARCH	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.4	FIRE PIT	03/L7.31	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.5	SEE PLAY EQUIPMENT SCHEDULE	L2.10	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.6	REMOVABLE BOLLARD	05/L7.50	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.7	PARK ENTRY SIGN	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.8	NEW TRAFFIC SIGNAL	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.9	SCULPTURE BASE (1 of 3)	01/L7.40	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.10	TROLLEY TRAIL SIGNAGE	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.11	THERMOPLASTIC PAVEMENT MARKINGS	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.12	MISC. PARK SIGN, EXACT LOCATION TBD	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.13	SALVAGED LANDSCAPE BOULDER	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.14	KAYAK RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.15	LIFE JACKET RACK	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X
10.16	WATER FEATURE PUSH BUTTON	SEE NARRATIVE	X/LX.X, X/LX.X	X/LX.X, X/LX.X

GENERAL NOTES

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SCALE 1"=10'

2.ink Studio | Landscape Architecture
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REGISTERED LANDSCAPE ARCHITECT
JONATHAN BEAVER
OREGON

MILWAUKIE BAY PARK

100% Design Development

project address

DATE: 06/03/2022 SCALE: AS NOTED DRAWN BY: JW

REVISIONS

DATE	DESCRIPTION	BY

MATERIALS PLAN
AREA 4

L2.04

DRAWING SET SCALE:
IF THIS BAR DOES NOT MEASURE 1-INCH IN LENGTH, THE SCALE INDICATED THROUGHOUT THIS SET IS NOT ACCURATE. VERIFY SCALE PRIOR TO USING DRAWINGS.
ONE INCH

Appendix C
Site Photographs

Photo 1. Looking east at the Milwaukie Bay Park shoreline from the Willamette River. Stone steps visible on bank in left of photo (6/6/22).

Photo 2. Looking southeast at the Milwaukie Bay Park shoreline from the river. Boat ramp visible at right (6/6/22).

Photo 3. Looking northeast at the Milwaukie Bay Park shoreline from the Willamette River. Large coastal redwood in park visible at right (6/6/22).

Photo 4. Looking south along the park shoreline and riverside trail from the top of the stone river access steps (6/6/22).

Photo 5. Looking north along the river shoreline and riverside path from the top of the stone steps (6/6/22).

Photo 6. Looking north within vegetated corridor along the river, from a point north of the stone steps (6/6/22).

Photo 7. Looking west over the Johnson Creek confluence with the Willamette River (6/6/22).

Photo 8. Looking upstream (northeast) along Johnson Creek from the northern portion of the park (6/6/22).

Photo 9. Looking north along the Willamette River from the southwestern portion of the park (6/6/22).

Photo 10. Looking south along the river shoreline towards the boat ramp in the southwestern portion of the park (6/6/22).

Photo 11. Looking north-northwest across the project area lawn from the southeastern portion of the project area (6/6/22).

Photo 12. Looking west-northwest from the southeastern portion of the project area towards Willamette River (6/6/22).

Photo 13. Looking southwest from the southeastern portion of the project area across the vehicle and boat trailer parking lot (6/6/22).

Photo 14. Looking south from the southeastern portion of the project area. Parking lot and access route visible at right. SE McLoughlin Blvd. visible at left (6/6/22).

Appendix E

Preliminary Stormwater Management Report

Milwaukie Bay Park

Preliminary Stormwater Management Report

Prepared to Support Land Use Application

Submitted by:

Property Owner / Site Address

North Clackamas Parks & Recreation District

Heather Koch – Project Manager
Email: hkoch@ncprd.com
Phone: 971-337-6867

Site Address - Milwaukie Bay Park
11211 SE McLoughlin Blvd
Milwaukie, Oregon 97222

Engineer of Record

ZUCKER engineering & design

Adam Zucker, PE
4014 SE Ankeny Street
Portland, Oregon 97214

Email: adam@zuckerenegineering.com
Phone: 503-956-3473

June 2022

Certification and Statement

I hereby certify that this Preliminary Stormwater Management Report for Milwaukie Bay Park located at 11211 SE McLoughlin Blvd. has been prepared by me or under my supervision and meets minimum standards of the City of Milwaukie and normal standards of engineering practice. I hereby acknowledge and agree that the jurisdiction does not and will not assume liability for the sufficiency, suitability, or performance of drainage facilities designed by me.

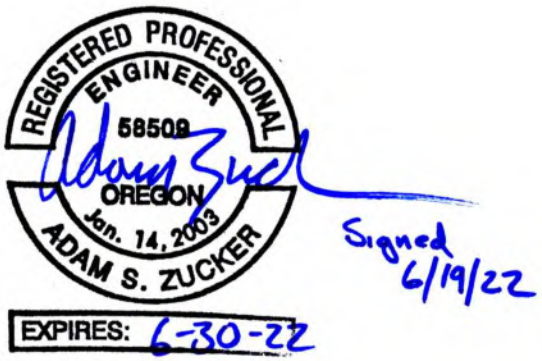

Table of Contents

1.0 Project Overview and Description

Milwaukie Bay Park is located at the west end of downtown Milwaukie along the eastern bank of the Willamette River (illustrated in green) in the Vicinity Map (**Figure 1**) below. The project represents final phase of Milwaukie's waterfront development work at this site. The proposed project site is approximately 3.5 acres as shown in **Figure 2 – Existing Conditions** included in the **Appendix A**. The project is located within the Willamette River watershed.

Figure 1 – Project Vicinity Map

The existing stormwater basin identified on **Figure 2** appears to have been designed and built for the future park improvements on this site as well treat some runoff from the existing parking lot. It appears that the parking lot design was changed after the preparation of the *Milwaukie Riverfront Park – Stormwater Report* prepared by David Evans and Associates (DEA), in December 2009, and currently includes pervious pavement and doesn't appear to drain into the existing stormwater basin on the park site.

The proposed project involves demolishing all of the existing concrete and asphalt pathways within the work limits and to construct park improvements that include the following elements include:

- Playground
- New Trolley Trail
- Performance Stage
- Interactive Water Feature
- Entry Plaza
- Fire Pit
- Restroom Building
- Picnic Areas
- New Walkways

These proposed project features are shown on **Figure 3 – Proposed Conditions**

A summary of the Existing and Proposed impervious surfaces on the Site include the following:

Existing Impervious Areas (sq. ft.)	
Concrete Walkways	14,490
Asphalt Walkways	5,410
Total Existing Impervious Area:	19,990 sq. ft.

Proposed Impervious Area (sq. ft.)	
Restroom	277
Performance Stage	803
Water Feature	2,701
Entry Plaza	4,773
Picnic Areas	1,534
Drop-Off Area	2,302
Walks and Pathways	16,366
Total Proposed Impervious Area:	28,756 sq. ft.

The proposed Trolley Trail (12,525 sq. ft.) will be constructed with porous asphalt and the proposed playground area surfacing (2,448 sq. ft.) will be constructed with pervious materials.

2.0 Methodology

2.1 Infiltration Testing Results

The an evaluation of the subsurface soil conditions and site infiltration testing at the site was performed by Hart Crowser in their Report of *Preliminary Geotechnical Engineering Services* (dated September 5, 2018) and in their *Geotechnical Report Addendum #1* (dated May 20, 2022). The site was found to be blanketed with 1 to 3 feet of undocumented fill and infiltration rates were variable but generally poor. Six infiltration rate test were performed throughout the site. Five of them were taken at a (shallow) depth 2 to 3 feet and one taken at a depth of 10 feet below grade. Four of the five shallow infiltration tests had a measured infiltration rate of less than 1 inch per hour. The fifth shallow infiltration test, which was performed at the upper portion of the site near McLaughlin Boulevard had a measured infiltration rate of 13 inches per hour.

2.2 Design Approach

Given the variability of the subsurface conditions and the predominance of poorly infiltrating soils, the design team decided to incorporate stormwater treatment facilities that relies primarily on filtration (i.e. a grassy swale). Despite the anticipation of poorly infiltrating soils throughout the site, the design team believes that incorporation of permeable asphalt for the Trolley Trail is an appropriate approach for the site because,

1) The trolley trail is located within a portion of the site that exhibited good infiltration capacity.

2) The alignment of the trolley trail generally coincides with the location of sidewalk along SE McLoughlin Blvd. and roadway sidewalks area generally designed to shed towards the roadway.
3) The City of Milwaukie requires that all new site walkways and paths are constructed of permeable materials.

2.3 Treatment and Design Requirements

The City of Milwaukie has adopted the most current version of the City of Portland's Stormwater Management Manual (2020) for all stormwater design and operational and maintenance requirements.

Due to the site's proximity and direct conveyance into the Willamette River, the stormwater management manual does not require on-site quantity control (i.e. detention) and only requires treatment of the pollution reduction storm event (1.61-inch, 24-hour storm event).

2.4 Site versus Right-of-Way

For the purposed of this project, the entire work limit line for this project is designated as "on-site work", governed by the requirements of the City's Stormwater Management Manual. The existing right-of-ways for this site are located in atypical locations, as shown in **Figure 2**, and are in the process of being adjusted. Specifically, there is an extension of the SE Jefferson Street right-of-way through the site that is no longer current and the location of the Oregon Department of Transportation's right-of-way is at the back of curb north of SE Jefferson Street and is along the back of the existing Trolley Trail south of SE Jefferson Street.

2.5 Treatment Facility Types and Evaluation Approaches

This project includes a three types of stormwater treatment facilities,

- A Grassy Swale that treats a majority of the runoff from the site,
- A Stormwater Basin is the location of the existing stormwater facility on site, and
- Pervious Asphalt for the new Trolley Trail pathway.

The sizing of the Grassy Swale is based on the Performance Approach and utilizes a spreadsheet that calculates the same Santa Barbara Unit Hydrograph (SBUH) Type 1A, 24-hour storm distribution that is provided in the Appendix of the City of Portland's Stormwater Management Manual and a channel conveyance spreadsheet that incorporates the Mannings Equation.

The sizing of the Stormwater Basin is based on City of Portland's Presumptive Approach Calculator (PAC). The contributing drainage catchment for this facility is small enough that it can adequately store and infiltrate the design storm despite the poor infiltration rates (0.375 in/hour used for design).

The Trolley Trail will be based on standard design and specification for pervious asphalt.

The new asphalt and concrete for the Drop-Off Area (2,302 square feet) replaces 1,613 square feet that already drains into existing stormwater planters in the North Parking Lot. Zucker Engineering & Design will evaluate the sizing of the existing planters to determine if they are sized appropriately to manage

the addition 689 square feet of impervious area. Refer to **Figure 3 – Proposed Conditions**, for a location proposed stormwater treatment facilities.

3.0 Analysis

3.1 Drainage Catchment Areas

The site has been delineated into three catchments that correspond with each treatment facilities sized and evaluated for this report.

The *Northern Park* Basin (24,639 square feet of impervious surfaces) encompasses a majority of the park's impervious surfaces, including the restroom building, picnic areas, water feature, performance stage, entry plaza, and walkways. This basin drains into the proposed **Grassy Swale** stormwater feature.

The *Southern Fire Pit* Basin includes 1,815 square feet of the park walkways and drains into the proposed **Stormwater Basin** that is located where the existing stormwater basin is currently located.

The North Parking Basin (N1) includes 2,302 square feet of asphalt and concrete that drains into the existing parking lot stormwater planters. The proposed park improvements increase the impervious area draining into the existing stormwater planters by 689 square feet.

The proposed pervious asphalt Trolley Trail encompasses 12,525 square feet its areas is not included in the sizing of the proposed stormwater facilities.

3.2 Grassy Swale – Northern Park Basin

The design and sizing of the Grassy Swale was based on design guidelines outlined in Section 3.2.5.5 of City of Portland Stormwater Management Manual. Key requirements include:

- A maximum design velocity of 0.9 feet per second
- A minimum hydraulic residence time of 9 minutes
- A minimum length of 100 feet
- A design Mannings n value of 0.25
- A maximum flow depth of 4 inches

The proposed swale will not include a high-flow diversion for flows above the pollution reduction storm and must safely convey the 25-year storm event (peak 25-year, 5-minute intensity of 3.32 inches per hour), analyzed using the Rational Method. The swale design must also meet the following criteria:

- Have a minimum of 4 inches of freeboard above the water surface, and
- Have a maximum flow velocity less than 3 feet per second

The impervious surfaces in *North-Park* Basin were calculated to have a peak pollution reduction flow rate of **0.21 cubic feet per second (CFS)**. The spreadsheet calculation of this runoff rate is included in the **Appendix B**. The correspond Rational Method High flow runoff event is:

Rational Method = CIA = 0.9 x 3.32 x (24,639 / 43,560) = **1.70 cfs**

The proposed grassy swale is designed to have a 2-foot wide bottom width with 4:1 side slopes, a minimum 12-inch depth, and an average longitudinal slope of 2.7 percent. Based on this channel geometry, an inflow rate of 0.21 cfs, and an overall length of 165 feet, the corresponding hydraulic residence time is 9.0 minutes. The Trapezoidal Channel Hydraulic Spreadsheet included in the **Appendix B** includes flows, velocities, and residence times for varying flow depths. The spreadsheet indicates that during the high-flow event the maximum flow depth will be 8 inches and maximum velocity will be 0.5 feet per second. The swale is designed to be at least 12-inches deep and therefore meets the 4-inch freeboard requirement during the peak 25-year flow event.

3.3 Stormwater Basin – Southern Basin

A small portion of the park's drainage, about 1,815 square feet drains to into the re-graded Stormwater Basin. The stormwater basin will have a bottom area that is about 50 square feet, 3:1 side slopes, a 12-inch depth, and a 12-inch depth of drainage rock underneath the facility. Despite the anticipated poorly draining soils (0.375 in/hr for design), the size of the contributing drainage basin is small enough that the facility can adequately store and infiltrate the pollution reduction storm. A summary of the City of Portland's PAC report is included in the **Appendix C.**

3.4 Existing Planter – North Parking Lot Basin

This project impacts a portion of the existing parking lot that abuts the project site to the south with a new drop off area that increase the impervious area draining into the existing North Parking Lot Basins (N1 – as denoted in 2009 DEA Stormwater Report). According to the DEA report, the N1 drainage basin is 11, square feet and the associated treatment Planter has a treatment area of 1,057 square feet and depth of 10 inches. A copy of the original PAC calculations are included in the **Appendix C.** ZED re-created this drainage basin (plus 689 square feet) in the PAC and routed it through a similarly sized/designed Stormwater Planter. These new PAC calculations indicate that existing North Parking Lot Stormwater Basin has the treatment capacity to adequately handle the increased runoff. A copy of the new PAC calculations area included in the **Appendix C.**

4.0 Engineering Conclusions

It is the findings of this report that the proposed stormwater management facilities for Milwaukie Bay Park, as well as that alteration to the existing North Parking Lot drainage basin meet the treatment requirements of the City of Portland's 2020 Stormwater Management Manual. The site's proximity to the Willamette River precludes the need for on-site flow control and only requires management of the Pollution Reduction storm. Below is the summary of impervious area managed and type of treatment facility that is managing the runoff:

Drainage Basin	Impervious Area	Treatment Facility
Northern Park Basin	24,639 square feet	Grassy Swale
Southern Park (Fire Pit) Basin	1,815 square feet	Stormwater Basin
North Parking Lot (N1)	2,302 (689 new) square feet	Stormwater Planter (Existing)
Trolley Trail	12,525 square feet	Pervious Asphalt

The sizing of the Grassy Swale was based on the Performance Approach and residence time, flow depths, and flow velocities were evaluated based the principles of the Mannings Equations for a trapezoidal channel.

The sizing of the Stormwater Basin and existing Stormwater Planter were performed using the City of Portland's Presumptive Approach Calculator (PAC).

The generally poorly measured infiltration rates on the site lend themselves to filtering-type treatment facilities (ie Grassy Swales). However the relatively small size of the Southern Park basin makes the stormwater basin feasibly and the location of the Trolley Trail makes the proposed use of pervious asphalt more practical.

APPENDIX A

Figure 2 – Existing Conditions

Figure 3 – Proposed Conditions

Willamette River

CULVERT

PROJECT'S WORK LIMITS LINE

OUTFALL

STORMWATER BASIN

NORTH PARKING LOT

RIGHT-OF-WAY, TYP.

AREA DRAIN

ASPHALT PATH, TYP.

CONCRETE SIDEWALK

SE McLoughlin Blvd

SE Washington St

SE Jefferson St

SE Monroe St

SE Jackson St

ZUCKER engineering & design

80 0 80 160

SCALE: 1" = 80'

FIGURE 2
Existing Conditions

Preliminary Stormwater Management Plan
Milwaukie Bay Park

Willamette River

DRAINAGE BASIN BOUNDARY

GRASSY SWALE

CULVERT

PROJECT'S WORK LIMITS LINE

STAGE

STORMWATER BASIN

PARKING LOT DRAINAGE BASIN

NORTHERN DRAINAGE BASIN

NORTH PARKING LOT

SOUTHERN DRAINAGE BASIN

FIRE PIT

PLAYGROUND

PICNIC AREA

WATER FEATURE

PICNIC AREA

RESTROOM

ENTRY PLAZA

PERVIOUS ASPHALT

PERVIOUS ASPHALT

SE McLoughlin Blvd

SE Washington St

SE Jefferson St

SE Monroe St

SE Jackson St

ZUCKER engineering & design

80 0 80 160

SCALE: 1" = 80'

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FIGURE 3
Proposed Conditions

Preliminary Stormwater Management Plan
Milwaukie Bay Park

APPENDIX B

Northern Park Basin – SBUH Spreadsheet

Trapezoidal Channel Hydraulic Using Mannings Equation

A SAMPLE HYDROGRAPH (SBUH METHOD) Pollution Reduction Stor

Based on the Design Storm Distribution from City of Portland's SWMM

Given: Project = Shute Park Hillsboro Oregon

Area = 0.57 acres

Pt = **1.61** Inches - Total 24-hr Rainfall for Design Storm

dt = 10 min.

Tc = 5 min. (Developed site conditions)

PERVIOUS Parcel		IMPERVIOUS Parcel			
Area =	0 acres	Area =	0.57 acres	Q - Peak	0.21 cfs
CN =	80	CN =	98	Volume	2867 ft^3
S =	2.50	S =	0.20		
0.2S =	0.50	0.2S =	0.04		
			24829.2		

Developed Conditions Runoff hydrograph

Column (3) = SCS Type IA Rainfall Distribution

Column (4) = Col. (3) x Pt = 10 year - 24 Hour Hyetograph at this location.

Column (5) = Accumulated Sum of Col. (4)

Column (6) = [If P <= 0.2S] = 0; Note, use PERVIOUS Area "S" value.

[If P > 0.2S] = (Col.(5) - 0.2S)^2/(Col.(5) + 0.8S); Using the PERVIOUS Area "S" value.

Column (7) = Col.(6) of Present Time Step - Col.(6) of Previous Time Step

Column (8) = Same method as for Col.(6), except use the IMPERVIOUS Area "S" value.

Column (9) = Col.(8) of the present time step - Col.(8) of the previous time step.

Column (10) = ((PERVIOUS area / Total area) x Col.(7)) + ((IMPERVIOUS area / Total area) x Col.(9))

Column (11) = (60.5 x Col.(10) x Total Area) / 10 (dt = 10 minutes)

Routing Constant, w = dt / (2Tc + dt) = 0.5000

Column (12) = Col.(12) of Previous Time Step + (w x [Col.(11) of Previous Time Step

+ Col.(11) of Present Time Step - (2 x Col.(12) of Previous Time Step)])

::

					Pervious Area		Impervious Area				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Time Increment	Time	Rainfall distribution	Incremental Rainfall	Accumulated Rainfall	Accumulated Runoff	Incremental Runoff	Accumulated Runoff	Incremental Runoff	Total Runoff	Instant hydrograph	design hydrograph
	min.	% of Pt	in.	in.	in.	in.	in.	in.	in.	cfs	cfs
1	10	0.0040	0.0064	0.0064	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
2	20	0.0040	0.0064	0.0129	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
3	30	0.0040	0.0064	0.0193	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
4	40	0.0040	0.0064	0.0258	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
5	50	0.0040	0.0064	0.0322	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
6	60	0.0040	0.0064	0.0386	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00
7	70	0.0040	0.0064	0.0451	0.0000	0.0000	0.0001	0.0001	0.0001	0.00	0.00
8	80	0.0040	0.0064	0.0515	0.0000	0.0000	0.0005	0.0004	0.0004	0.00	0.00
9	90	0.0040	0.0064	0.0580	0.0000	0.0000	0.0013	0.0008	0.0008	0.00	0.00
10	100	0.0040	0.0064	0.0644	0.0000	0.0000	0.0024	0.0011	0.0011	0.00	0.00
11	110	0.0050	0.0081	0.0725	0.0000	0.0000	0.0042	0.0018	0.0018	0.01	0.01
12	120	0.0050	0.0081	0.0805	0.0000	0.0000	0.0065	0.0022	0.0022	0.01	0.01

13	130	0.0050	0.0081	0.0886	0.0000	0.0000	0.0090	0.0026	0.0026	0.01	0.01	
14	140	0.0050	0.0081	0.0966	0.0000	0.0000	0.0120	0.0029	0.0029	0.01	0.01	
15	150	0.0050	0.0081	0.1047	0.0000	0.0000	0.0152	0.0032	0.0032	0.01	0.01	
16	160	0.0050	0.0081	0.1127	0.0000	0.0000	0.0187	0.0035	0.0035	0.01	0.01	
17	170	0.0060	0.0097	0.1224	0.0000	0.0000	0.0233	0.0046	0.0046	0.02	0.01	
18	180	0.0060	0.0097	0.1320	0.0000	0.0000	0.0282	0.0049	0.0049	0.02	0.02	
19	190	0.0060	0.0097	0.1417	0.0000	0.0000	0.0334	0.0052	0.0052	0.02	0.02	
20	200	0.0060	0.0097	0.1513	0.0000	0.0000	0.0388	0.0055	0.0055	0.02	0.02	
21	210	0.0060	0.0097	0.1610	0.0000	0.0000	0.0445	0.0057	0.0057	0.02	0.02	
22	220	0.0060	0.0097	0.1707	0.0000	0.0000	0.0505	0.0059	0.0059	0.02	0.02	
23	230	0.0070	0.0113	0.1819	0.0000	0.0000	0.0577	0.0072	0.0072	0.02	0.02	
24	240	0.0070	0.0113	0.1932	0.0000	0.0000	0.0651	0.0075	0.0075	0.03	0.03	
25	250	0.0070	0.0113	0.2045	0.0000	0.0000	0.0728	0.0077	0.0077	0.03	0.03	
26	260	0.0070	0.0113	0.2157	0.0000	0.0000	0.0807	0.0079	0.0079	0.03	0.03	
27	270	0.0070	0.0113	0.2270	0.0000	0.0000	0.0888	0.0081	0.0081	0.03	0.03	
28	280	0.0070	0.0113	0.2383	0.0000	0.0000	0.0971	0.0083	0.0083	0.03	0.03	
29	290	0.0082	0.0132	0.2515	0.0000	0.0000	0.1070	0.0099	0.0099	0.03	0.03	
30	300	0.0082	0.0132	0.2647	0.0000	0.0000	0.1171	0.0101	0.0101	0.03	0.03	
31	310	0.0082	0.0132	0.2779	0.0000	0.0000	0.1274	0.0103	0.0103	0.04	0.04	
32	320	0.0082	0.0132	0.2911	0.0000	0.0000	0.1379	0.0105	0.0105	0.04	0.04	
33	330	0.0082	0.0132	0.3043	0.0000	0.0000	0.1485	0.0106	0.0106	0.04	0.04	
34	340	0.0082	0.0132	0.3175	0.0000	0.0000	0.1592	0.0108	0.0108	0.04	0.04	
35	350	0.0095	0.0153	0.3328	0.0000	0.0000	0.1719	0.0126	0.0126	0.04	0.04	
36	360	0.0095	0.0153	0.3481	0.0000	0.0000	0.1846	0.0128	0.0128	0.04	0.04	
37	370	0.0095	0.0153	0.3634	0.0000	0.0000	0.1976	0.0129	0.0129	0.04	0.04	
38	380	0.0095	0.0153	0.3787	0.0000	0.0000	0.2106	0.0131	0.0131	0.05	0.04	
39	390	0.0095	0.0153	0.3940	0.0000	0.0000	0.2238	0.0132	0.0132	0.05	0.05	
40	400	0.0095	0.0153	0.4093	0.0000	0.0000	0.2371	0.0133	0.0133	0.05	0.05	
41	410	0.0134	0.0216	0.4308	0.0000	0.0000	0.2560	0.0189	0.0189	0.07	0.06	
42	420	0.0134	0.0216	0.4524	0.0000	0.0000	0.2752	0.0191	0.0191	0.07	0.07	
43	430	0.0134	0.0216	0.4740	0.0000	0.0000	0.2944	0.0193	0.0193	0.07	0.07	
44	440	0.0180	0.0290	0.5030	0.0000	0.0000	0.3206	0.0261	0.0261	0.09	0.08	
45	450	0.0180	0.0290	0.5319	0.0004	0.0004	0.3470	0.0264	0.0264	0.09	0.09	
46	460	0.0340	0.0547	0.5867	0.0029	0.0025	0.3973	0.0504	0.0504	0.17	0.13	
47	470	0.0540	0.0869	0.6736	0.0113	0.0084	0.4785	0.0812	0.0812	0.28	0.23	
48	480	0.0270	0.0435	0.7171	0.0173	0.0061	0.5195	0.0410	0.0410	0.14	0.21	Q peak
49	490	0.0180	0.0290	0.7461	0.0221	0.0047	0.5470	0.0275	0.0275	0.09	0.12	
50	500	0.0134	0.0216	0.7676	0.0259	0.0038	0.5675	0.0205	0.0205	0.07	0.08	
51	510	0.0134	0.0216	0.7892	0.0300	0.0041	0.5881	0.0206	0.0206	0.07	0.07	
52	520	0.0134	0.0216	0.8108	0.0344	0.0044	0.6087	0.0206	0.0206	0.07	0.07	
53	530	0.0088	0.0142	0.8250	0.0374	0.0030	0.6222	0.0136	0.0136	0.05	0.06	
54	540	0.0088	0.0142	0.8391	0.0405	0.0031	0.6358	0.0136	0.0136	0.05	0.05	
55	550	0.0088	0.0142	0.8533	0.0437	0.0032	0.6494	0.0136	0.0136	0.05	0.05	
56	560	0.0088	0.0142	0.8675	0.0471	0.0033	0.6630	0.0136	0.0136	0.05	0.05	
57	570	0.0088	0.0142	0.8816	0.0505	0.0035	0.6766	0.0136	0.0136	0.05	0.05	
58	580	0.0088	0.0142	0.8958	0.0541	0.0036	0.6902	0.0136	0.0136	0.05	0.05	
59	590	0.0088	0.0142	0.9100	0.0578	0.0037	0.7039	0.0136	0.0136	0.05	0.05	
60	600	0.0088	0.0142	0.9241	0.0615	0.0038	0.7175	0.0137	0.0137	0.05	0.05	
61	610	0.0088	0.0142	0.9383	0.0654	0.0039	0.7312	0.0137	0.0137	0.05	0.05	

62	620	0.0088	0.0142	0.9525	0.0693	0.0040	0.7449	0.0137	0.0137	0.05	0.05
63	630	0.0088	0.0142	0.9666	0.0734	0.0041	0.7586	0.0137	0.0137	0.05	0.05
64	640	0.0088	0.0142	0.9808	0.0776	0.0042	0.7723	0.0137	0.0137	0.05	0.05
65	650	0.0072	0.0116	0.9924	0.0810	0.0035	0.7835	0.0112	0.0112	0.04	0.04
66	660	0.0072	0.0116	1.0040	0.0846	0.0035	0.7948	0.0112	0.0112	0.04	0.04
67	670	0.0072	0.0116	1.0156	0.0882	0.0036	0.8060	0.0112	0.0112	0.04	0.04
68	680	0.0072	0.0116	1.0272	0.0918	0.0037	0.8173	0.0112	0.0112	0.04	0.04
69	690	0.0072	0.0116	1.0388	0.0955	0.0037	0.8285	0.0113	0.0113	0.04	0.04
70	700	0.0072	0.0116	1.0504	0.0993	0.0038	0.8398	0.0113	0.0113	0.04	0.04
71	710	0.0072	0.0116	1.0620	0.1031	0.0038	0.8511	0.0113	0.0113	0.04	0.04
72	720	0.0072	0.0116	1.0735	0.1070	0.0039	0.8623	0.0113	0.0113	0.04	0.04
73	730	0.0072	0.0116	1.0851	0.1110	0.0040	0.8736	0.0113	0.0113	0.04	0.04
74	740	0.0072	0.0116	1.0967	0.1150	0.0040	0.8849	0.0113	0.0113	0.04	0.04
75	750	0.0072	0.0116	1.1083	0.1191	0.0041	0.8962	0.0113	0.0113	0.04	0.04
76	760	0.0072	0.0116	1.1199	0.1232	0.0041	0.9075	0.0113	0.0113	0.04	0.04
77	770	0.0057	0.0092	1.1291	0.1265	0.0033	0.9164	0.0089	0.0089	0.03	0.03
78	780	0.0057	0.0092	1.1383	0.1298	0.0033	0.9254	0.0089	0.0089	0.03	0.03
79	790	0.0057	0.0092	1.1474	0.1332	0.0034	0.9343	0.0090	0.0090	0.03	0.03
80	800	0.0057	0.0092	1.1566	0.1366	0.0034	0.9433	0.0090	0.0090	0.03	0.03
81	810	0.0057	0.0092	1.1658	0.1400	0.0034	0.9522	0.0090	0.0090	0.03	0.03
82	820	0.0057	0.0092	1.1750	0.1435	0.0035	0.9612	0.0090	0.0090	0.03	0.03
83	830	0.0057	0.0092	1.1842	0.1470	0.0035	0.9702	0.0090	0.0090	0.03	0.03
84	840	0.0057	0.0092	1.1933	0.1505	0.0035	0.9791	0.0090	0.0090	0.03	0.03
85	850	0.0057	0.0092	1.2025	0.1541	0.0036	0.9881	0.0090	0.0090	0.03	0.03
86	860	0.0057	0.0092	1.2117	0.1577	0.0036	0.9971	0.0090	0.0090	0.03	0.03
87	870	0.0057	0.0092	1.2209	0.1613	0.0036	1.0061	0.0090	0.0090	0.03	0.03
88	880	0.0057	0.0092	1.2300	0.1650	0.0037	1.0150	0.0090	0.0090	0.03	0.03
89	890	0.0050	0.0081	1.2381	0.1682	0.0032	1.0229	0.0079	0.0079	0.03	0.03
90	900	0.0050	0.0081	1.2461	0.1715	0.0033	1.0308	0.0079	0.0079	0.03	0.03
91	910	0.0050	0.0081	1.2542	0.1748	0.0033	1.0387	0.0079	0.0079	0.03	0.03
92	920	0.0050	0.0081	1.2622	0.1781	0.0033	1.0466	0.0079	0.0079	0.03	0.03
93	930	0.0050	0.0081	1.2703	0.1814	0.0033	1.0544	0.0079	0.0079	0.03	0.03
94	940	0.0050	0.0081	1.2783	0.1848	0.0034	1.0623	0.0079	0.0079	0.03	0.03
95	950	0.0050	0.0081	1.2864	0.1882	0.0034	1.0702	0.0079	0.0079	0.03	0.03
96	960	0.0050	0.0081	1.2944	0.1916	0.0034	1.0781	0.0079	0.0079	0.03	0.03
97	970	0.0050	0.0081	1.3025	0.1950	0.0034	1.0860	0.0079	0.0079	0.03	0.03
98	980	0.0050	0.0081	1.3105	0.1984	0.0034	1.0939	0.0079	0.0079	0.03	0.03
99	990	0.0050	0.0081	1.3186	0.2019	0.0035	1.1018	0.0079	0.0079	0.03	0.03
100	1000	0.0050	0.0081	1.3266	0.2054	0.0035	1.1097	0.0079	0.0079	0.03	0.03
101	1010	0.0040	0.0064	1.3331	0.2082	0.0028	1.1160	0.0063	0.0063	0.02	0.02
102	1020	0.0040	0.0064	1.3395	0.2110	0.0028	1.1223	0.0063	0.0063	0.02	0.02
103	1030	0.0040	0.0064	1.3460	0.2139	0.0028	1.1287	0.0063	0.0063	0.02	0.02
104	1040	0.0040	0.0064	1.3524	0.2167	0.0029	1.1350	0.0063	0.0063	0.02	0.02
105	1050	0.0040	0.0064	1.3588	0.2196	0.0029	1.1413	0.0063	0.0063	0.02	0.02
106	1060	0.0040	0.0064	1.3653	0.2225	0.0029	1.1476	0.0063	0.0063	0.02	0.02
107	1070	0.0040	0.0064	1.3717	0.2254	0.0029	1.1540	0.0063	0.0063	0.02	0.02
108	1080	0.0040	0.0064	1.3782	0.2283	0.0029	1.1603	0.0063	0.0063	0.02	0.02
109	1090	0.0040	0.0064	1.3846	0.2312	0.0029	1.1666	0.0063	0.0063	0.02	0.02
110	1100	0.0040	0.0064	1.3910	0.2341	0.0029	1.1729	0.0063	0.0063	0.02	0.02

111	1110	0.0040	0.0064	1.3975	0.2371	0.0029	1.1793	0.0063	0.0063	0.02	0.02
112	1120	0.0040	0.0064	1.4039	0.2400	0.0030	1.1856	0.0063	0.0063	0.02	0.02
113	1130	0.0040	0.0064	1.4104	0.2430	0.0030	1.1919	0.0063	0.0063	0.02	0.02
114	1140	0.0040	0.0064	1.4168	0.2460	0.0030	1.1983	0.0063	0.0063	0.02	0.02
115	1150	0.0040	0.0064	1.4232	0.2490	0.0030	1.2046	0.0063	0.0063	0.02	0.02
116	1160	0.0040	0.0064	1.4297	0.2520	0.0030	1.2109	0.0063	0.0063	0.02	0.02
117	1170	0.0040	0.0064	1.4361	0.2550	0.0030	1.2173	0.0063	0.0063	0.02	0.02
118	1180	0.0040	0.0064	1.4426	0.2581	0.0030	1.2236	0.0063	0.0063	0.02	0.02
119	1190	0.0040	0.0064	1.4490	0.2611	0.0031	1.2299	0.0063	0.0063	0.02	0.02
120	1200	0.0040	0.0064	1.4554	0.2642	0.0031	1.2363	0.0063	0.0063	0.02	0.02
121	1210	0.0040	0.0064	1.4619	0.2673	0.0031	1.2426	0.0063	0.0063	0.02	0.02
122	1220	0.0040	0.0064	1.4683	0.2703	0.0031	1.2489	0.0063	0.0063	0.02	0.02
123	1230	0.0040	0.0064	1.4748	0.2734	0.0031	1.2553	0.0063	0.0063	0.02	0.02
124	1240	0.0040	0.0064	1.4812	0.2766	0.0031	1.2616	0.0063	0.0063	0.02	0.02
125	1250	0.0040	0.0064	1.4876	0.2797	0.0031	1.2680	0.0063	0.0063	0.02	0.02
126	1260	0.0040	0.0064	1.4941	0.2828	0.0031	1.2743	0.0063	0.0063	0.02	0.02
127	1270	0.0040	0.0064	1.5005	0.2860	0.0031	1.2807	0.0063	0.0063	0.02	0.02
128	1280	0.0040	0.0064	1.5070	0.2891	0.0032	1.2870	0.0063	0.0063	0.02	0.02
129	1290	0.0040	0.0064	1.5134	0.2923	0.0032	1.2933	0.0063	0.0063	0.02	0.02
130	1300	0.0040	0.0064	1.5198	0.2955	0.0032	1.2997	0.0063	0.0063	0.02	0.02
131	1310	0.0040	0.0064	1.5263	0.2987	0.0032	1.3060	0.0063	0.0063	0.02	0.02
132	1320	0.0040	0.0064	1.5327	0.3019	0.0032	1.3124	0.0063	0.0063	0.02	0.02
133	1330	0.0040	0.0064	1.5392	0.3051	0.0032	1.3187	0.0063	0.0063	0.02	0.02
134	1340	0.0040	0.0064	1.5456	0.3083	0.0032	1.3251	0.0063	0.0063	0.02	0.02
135	1350	0.0040	0.0064	1.5520	0.3116	0.0032	1.3314	0.0063	0.0063	0.02	0.02
136	1360	0.0040	0.0064	1.5585	0.3148	0.0033	1.3378	0.0063	0.0063	0.02	0.02
137	1370	0.0040	0.0064	1.5649	0.3181	0.0033	1.3441	0.0063	0.0063	0.02	0.02
138	1380	0.0040	0.0064	1.5714	0.3214	0.0033	1.3505	0.0064	0.0064	0.02	0.02
139	1390	0.0040	0.0064	1.5778	0.3247	0.0033	1.3568	0.0064	0.0064	0.02	0.02
140	1400	0.0040	0.0064	1.5842	0.3280	0.0033	1.3632	0.0064	0.0064	0.02	0.02
141	1410	0.0040	0.0064	1.5907	0.3313	0.0033	1.3695	0.0064	0.0064	0.02	0.02
142	1420	0.0040	0.0064	1.5971	0.3346	0.0033	1.3759	0.0064	0.0064	0.02	0.02
143	1430	0.0040	0.0064	1.6036	0.3380	0.0033	1.3822	0.0064	0.0064	0.02	0.02
144	1440	0.0040	0.0064	1.6100	0.3413	0.0033	1.3886	0.0064	0.0064	0.02	0.02

Total Volume of Runoff = 2867 cu. ft.

(Found by summing this column and multiplying by 600. 600 is the conversion required to convert SUM(Q) in cfs to total volume in cubic feet as follows:

V = SUM(Q) x dt

(cu.ft.) = (cu.ft/s) x (10 min.) x (60 s/min.)

TRAPEZOIDAL CHANNEL HYDRAULICS
USING MANNING'S EQUATION

Milwaukie Bay Park - Grassy Swale Analysis

Water Depth (inches)	Water Depth (ft.)	Bottom Width (ft.)	Side Slope H/V	Channel Area (sq. ft.)	Wetted Perimeter (ft.)	Hydraulic Radius (ft.)	Manning's Coefficient (n)	Channel Slope (%)	Flow Rate (cfs)	Water Velocity (ft/s)	Top Width (ft.)	Froude Number	Length (ft.)	Residence Time (min.)	
1	0.08	2.00	4.00	0.19	2.69	0.07	0.250	2.7%	0.03	0.17	2.67	0.11	165	16.2	
2	0.17	2.00	4.00	0.44	3.37	0.13	0.250	2.7%	0.11	0.25	3.33	0.12	165	10.8	
2.8	0.23	2.00	4.00	0.68	3.92	0.17	0.250	2.7%	0.21	0.31	3.87	0.13	165	9.0	PR
3	0.25	2.00	4.00	0.75	4.06	0.18	0.250	2.7%	0.24	0.32	4.00	0.13	165	8.7	
4	0.33	2.00	4.00	1.11	4.75	0.23	0.250	2.7%	0.41	0.37	4.67	0.13	165	7.4	
5	0.42	2.00	4.00	1.53	5.44	0.28	0.250	2.7%	0.642	0.42	5.33	0.14	165	6.5	
6	0.50	2.00	4.00	2.00	6.12	0.33	0.250	2.7%	0.93	0.46	6.00	0.14	165	5.9	
8	0.67	2.00	4.00	3.11	7.50	0.41	0.250	2.7%	1.70	0.54	7.33	0.15	165	5.0	HF
10	0.83	2.00	4.00	4.44	8.87	0.50	0.250	2.7%	2.75	0.62	8.67	0.15	165	4.5	
12	1.00	2.00	4.00	6.00	10.25	0.59	0.250	2.7%	4.11	0.69	10.00	0.16	165	4.0	

PR = Pollution Reduction Storm - 1.61 inches per 24-hours (SBUH Type 1a Rainfall Distribution) = 0.207 cfs

HF = High Flow Event - 3.32 in/hr Rational Method Approach = 0.90 x 3.32 in/hr x 0.56 acres = 1.70 cfs

APPENDIX C

PAC Report for Stormwater Basin and Planter

Original PAC Report for Existing Storwmwater Planter in Basin N1

PAC Report

Project Details

Project Name	Permit No	Created
MBP		5/27/2022 12:06:48 AM
Project Address	**Designer**	**Last Modified**
SE McLoughlin Blvd	Adam Zucker	6/19/2022 12:27:10 AM
	Company	**Report Generated**
	Zucker Engineering & Design	6/18/2022 5:42:05 PM

Project Summary

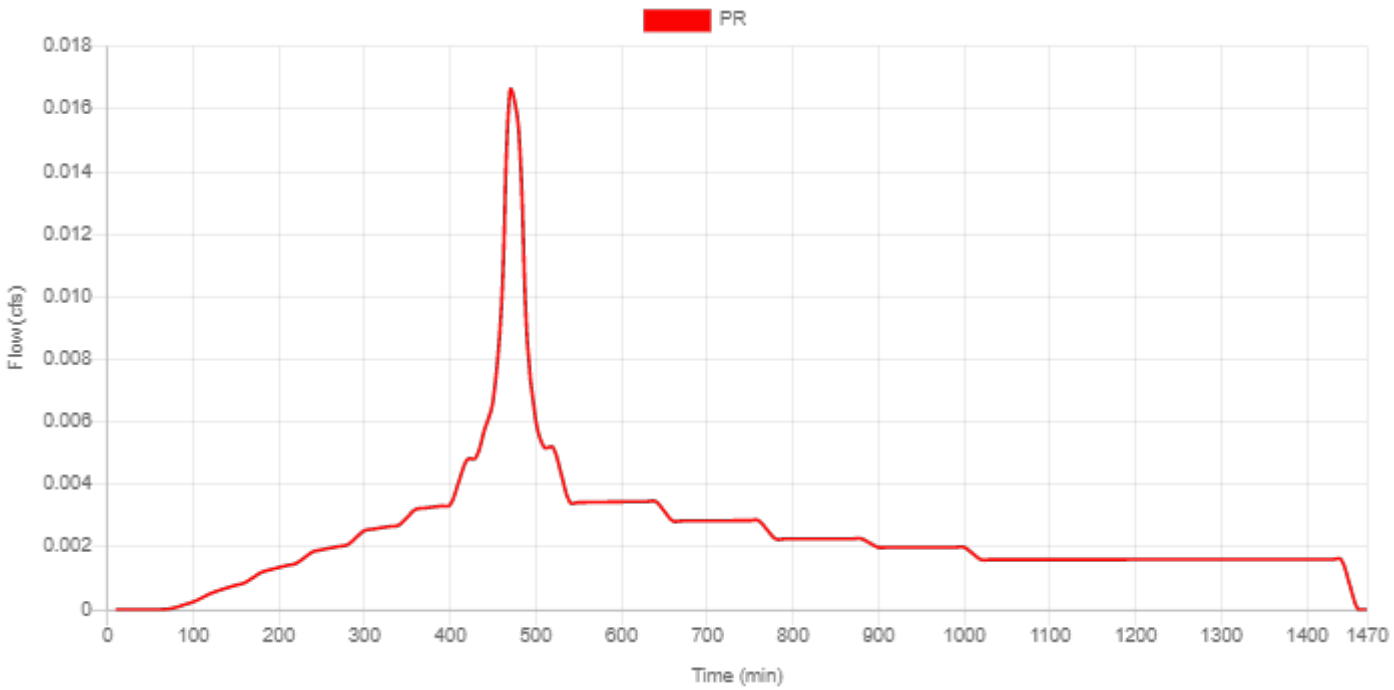
Catchment Name	Imper-vious Area (sq ft)	Native Soil Design Infilt-ration Rate (in/hr)	Level	Category	Config	Facility Area (excl. free board) (sq ft)	Facility Sizing Ratio (%)	PR Results	Infilt-ration Results	Flow Control Results
South - Fire Pit	1815	0.375	2A	Basin	B	140.00	7.71	Pass	NA	NA
North Parking Lot	12064	1	1	FlatPlanter	B	1057.00	8.76	Pass	Pass	NA

South - Fire Pit

Site Soils & Infiltration Testing	Infiltration Testing Procedure OpenPit Tested Native Soil Infiltration Rate 0.75 in/hr
Correction Factor	CF test 2
Design Infiltration Rates	Native Soil 0.375 in/hr Imported Blended Soil 6 in/hr
Catchment Information	Hierarchy Level 2A Hierarchy Description Offsite flow to the Willamette River, Columbia River, or Columbia Slough, or discharge to a storm-only pipe system or the Multnomah County Drainage District System (with capacity) that directly discharges to one of the three waterways named above. Pollution Reduction Requirement Filter the post-development stormwater runoff from the water quality storm event through the blended soil. Infiltration Requirement N/A Flow Control Requirement N/A Impervious Area 1815 sq ft 0.042 acre Pre-Development Time of Concentration (Tc pre) 10 min Post-Development Time of Concentration (Tc post) 5 min Pre-Development Curve Number (CN pre) 74 Post-Development Curve Number (CN post) 98

SBUH Results

Post-Development Runoff



	Pre - Development Rate and Volume		Post - Development Rate and Volume	
	Peak Rate (cfs)	Total Volume (cf)	Peak Rate (cfs)	Total Volume (cf)
PR	0.0006	28.2	0.0166	210

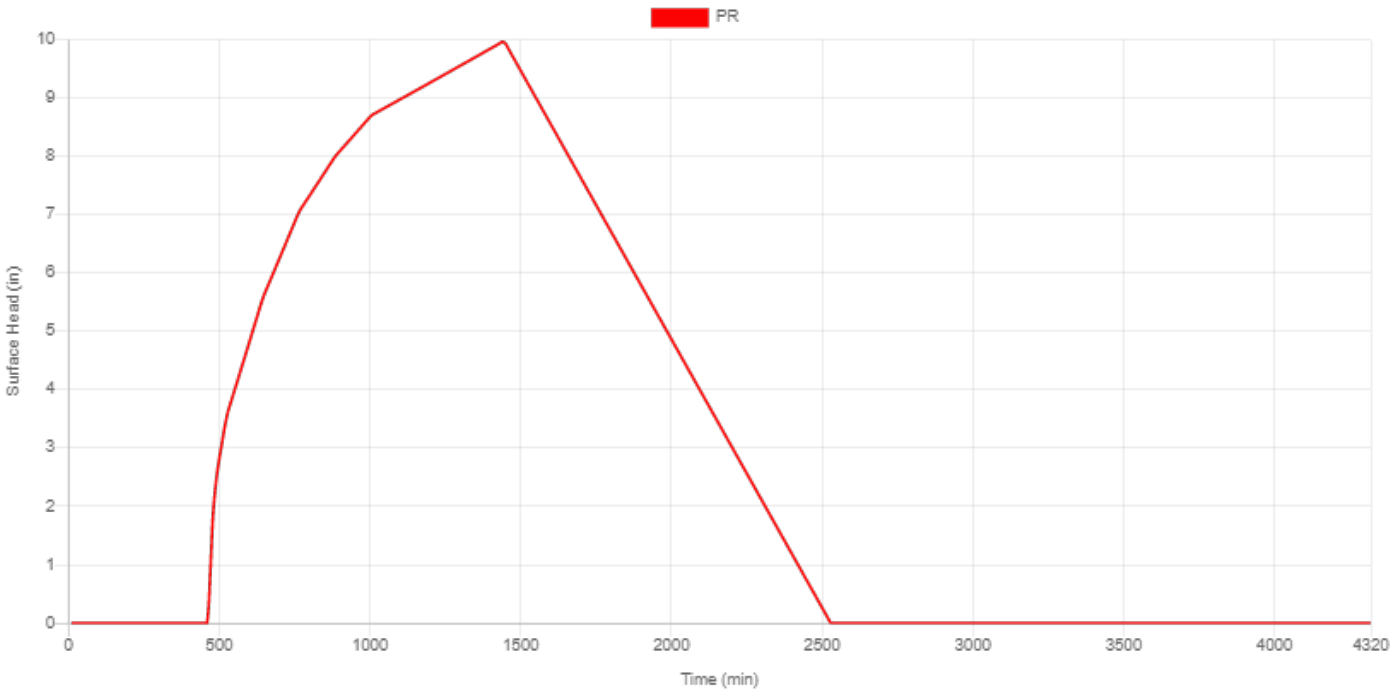
	Overflow		Underdrain Outflow		Infiltration	
	Peak Rate (cfs)	Total Volume (cf)	Peak Rate (cfs)	Total Volume (cf)	Peak Rate (cfs)	Total Volume (cf)
PR	0	0	0	0	0.001	210

Amoeba Basin

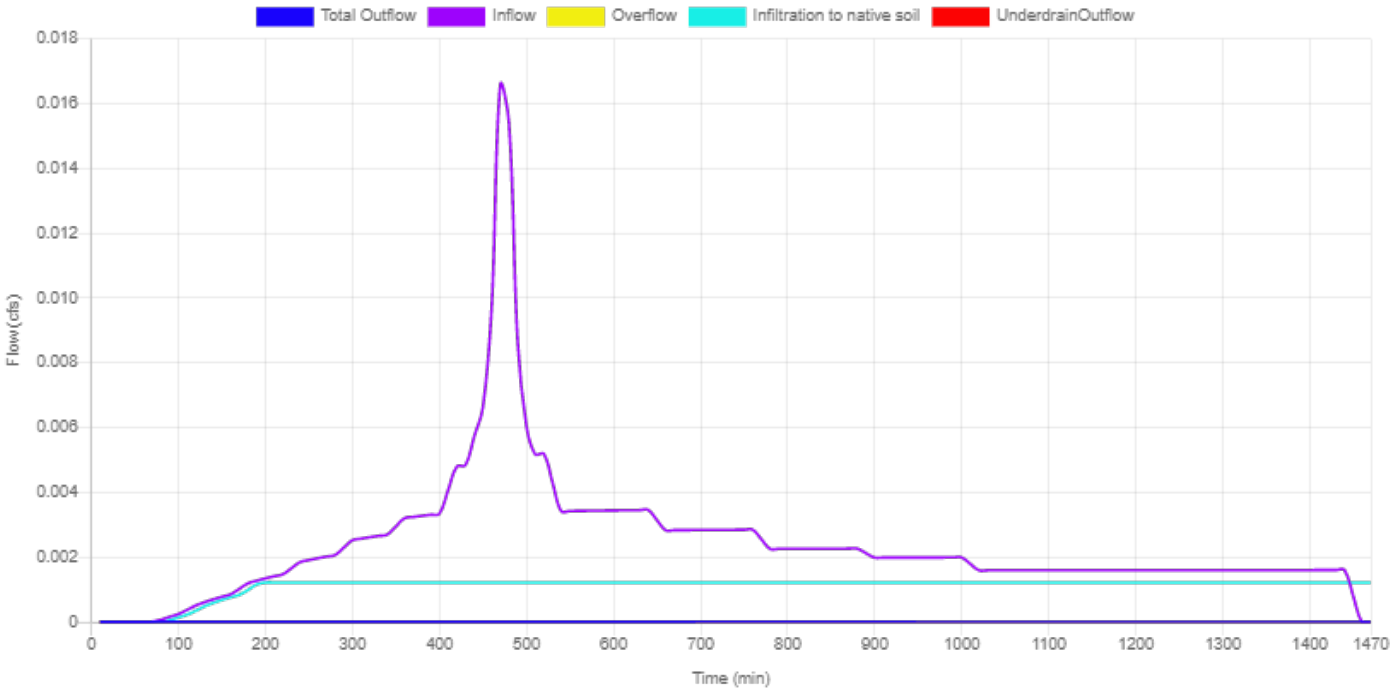
Site Soils & Infiltration Testing	Category Amoeba Basin Shape Amoeba Location Parcel Configuration B: Infiltration with Rock Storage[RS] **Above Grade Storage Data** Bottom Area 50 sq ft Bottom Perimeter Length 30.00 ft Side Slope 3.0 h:1v Freeboard Depth 18 in Overflow Height 12 in Total Depth of Blended Soil plus Rock 24 in Surface Storage Capacity at Overflow 95 cu ft Design Infiltration Rate to Soil Underlying the Facility 0.001 cfs Design Infiltration Rate for Imported Blended Soil in the Facility 0.016 cfs **Below Grade Storage Data** Catchment is too small for flow control? No Rock Area 50.00 sq ft Rock Width 8.00 ft Rock Storage Depth

	12.0 in Rock Porosity 0.3 Percent of Facility Base that Allows Infiltration 100 %
Facility Facts	Total Facility Area (excluding freeboard) 140.00 sq ft Sizing Ratio 7.71 %
Pollution Reduction Results	Pollution Reduction Score Pass Overflow Volume 0.00 cf Surface Capacity Used 83.05 %

Surface Head



Water Quality

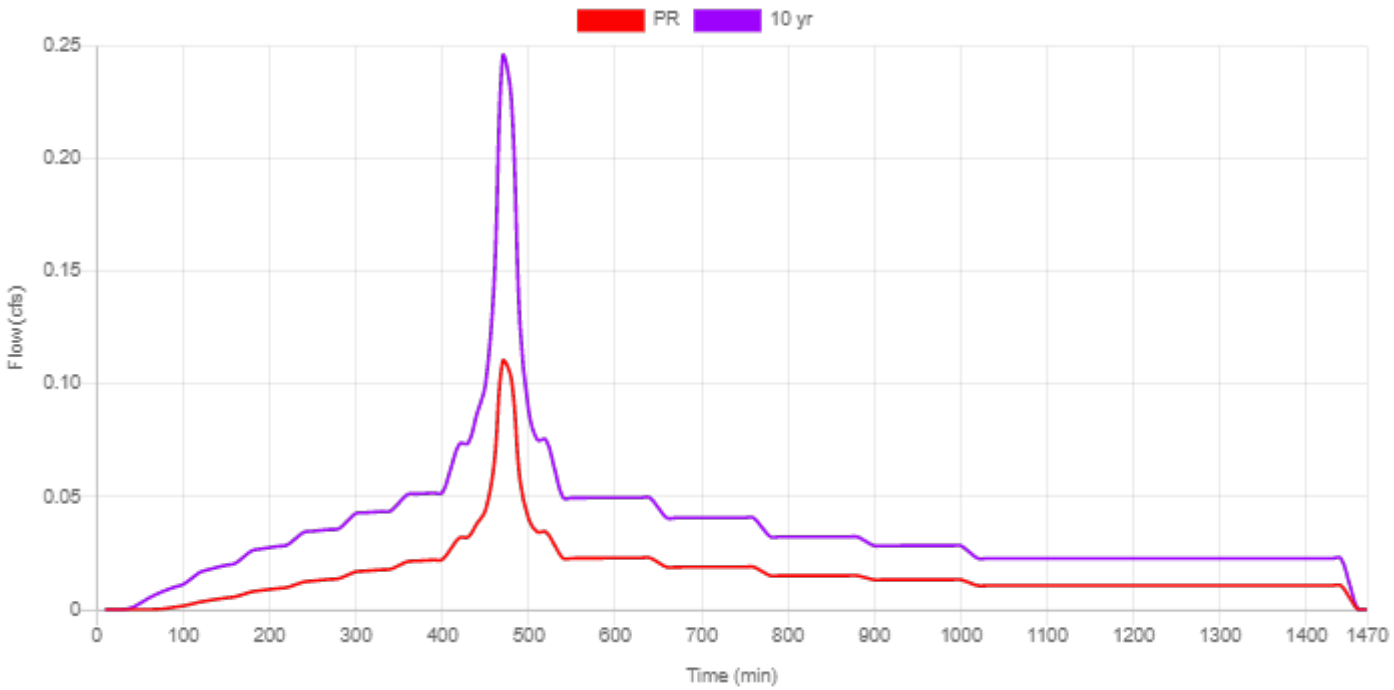


North Parking Lot

Site Soils & Infiltration Testing	Infiltration Testing Procedure Encased Tested Native Soil Infiltration Rate 2.00 in/hr
Correction Factor	CF test 2
Design Infiltration Rates	Native Soil 1 in/hr Imported Blended Soil 6 in/hr
Catchment Information	Hierarchy Level 1 Hierarchy Description On-site infiltration with a surface infiltration facility. Pollution Reduction Requirement Filter the post-development stormwater runoff from the water quality storm event through the blended soil. Infiltration Requirement Infiltrate the post-development stormwater runoff from the 10-year storm event. Flow Control Requirement N/A Impervious Area 12064 sq ft 0.277 acre Pre-Development Time of Concentration (Tc pre) 5 min Post-Development Time of Concentration (Tc post) 5 min Pre-Development Curve Number (CN pre) 74 Post-Development Curve Number (CN post) 98

SBUH Results

Post-Development Runoff



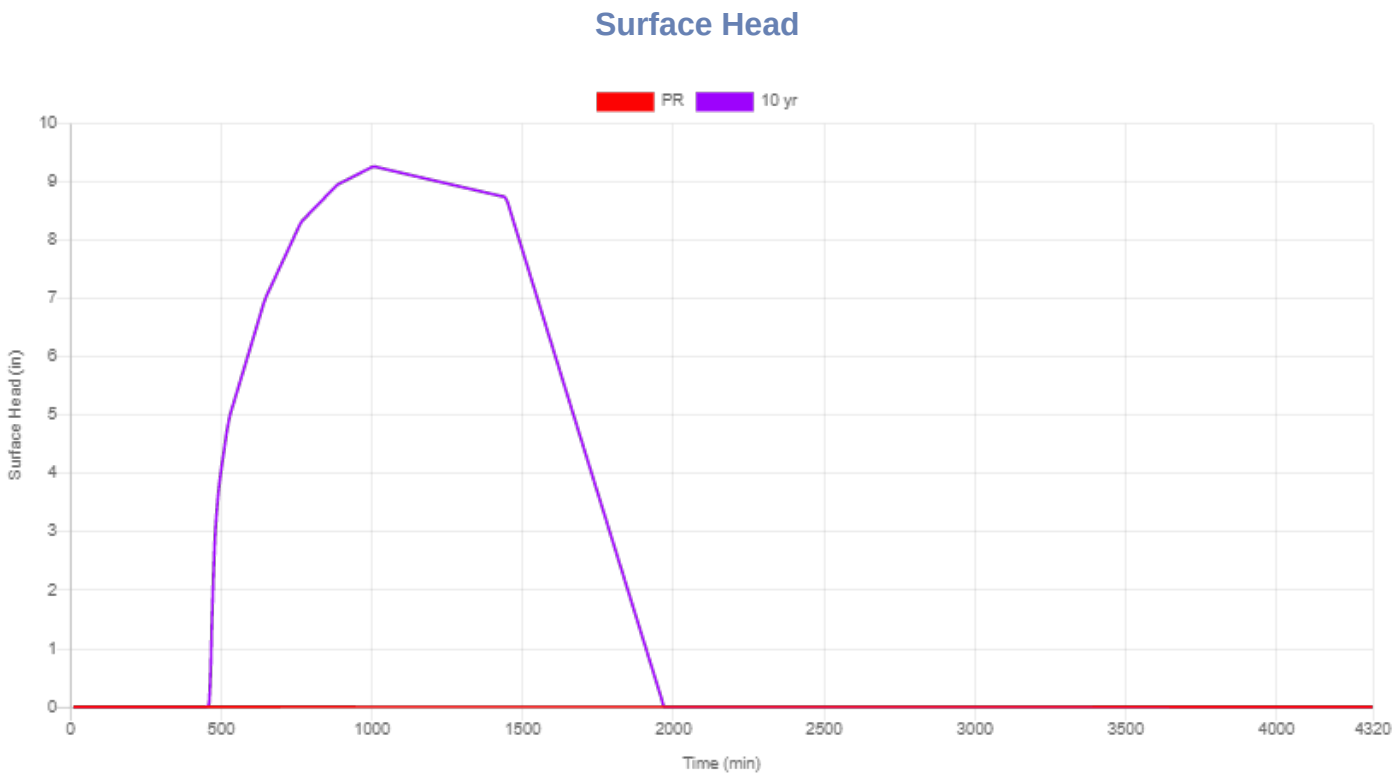
	Pre - Development Rate and Volume		Post - Development Rate and Volume	
	Peak Rate (cfs)	**Total Volume (cf)**	**Peak Rate (cfs)**	**Total Volume (cf)**
PR	0.004	187.2	0.1102	1396
10-Year	0.0681	1177.7	0.2455	3183.7

	Overflow		Underdrain Outflow		Infiltration	
	Peak Rate (cfs)	**Total Volume (cf)**	**Peak Rate (cfs)**	**Total Volume (cf)**	**Peak Rate (cfs)**	**Total Volume (cf)**
PR	0	0	0	0	0.024	1396
10-Year	0	0	0	0	0.024	3183.7

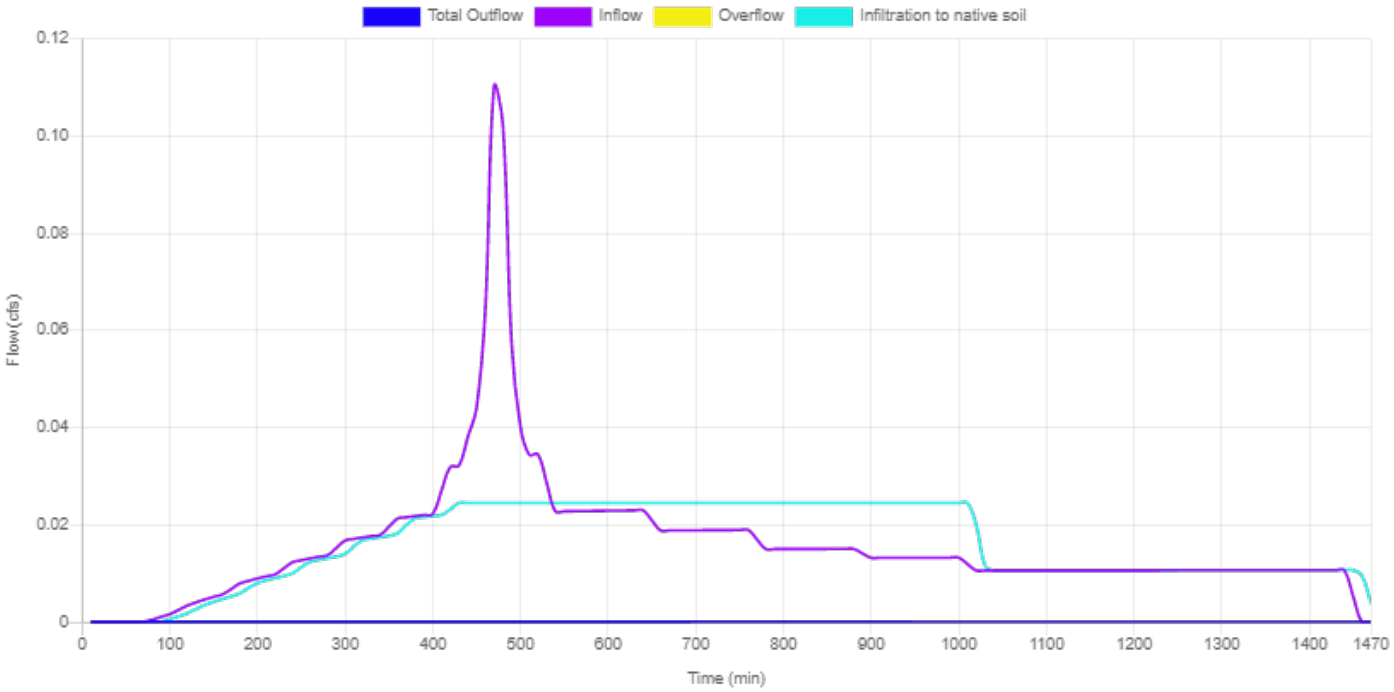
Flat Planter

Site Soils & Infiltration Testing	Category Flat Planter Shape Null Location Parcel Configuration B: Infiltration with Rock Storage[RS] **Above Grade Storage Data** Bottom Area 1057 sq ft Bottom Width 6.00 ft Overflow Height 10.3 in Total Depth of Blended Soil plus Rock 30 in Surface Storage Capacity at Overflow 907.26 cu ft Design Infiltration Rate to Soil Underlying the Facility 0.024 cfs Design Infiltration Rate for Imported Blended Soil in the Facility 0.147 cfs **Below Grade Storage Data** Catchment is too small for flow control? No Rock Area 994.00 sq ft Rock Width 6.00 ft Rock Storage Depth 12.0 in Rock Porosity 0.3 Percent of Facility Base that Allows Infiltration

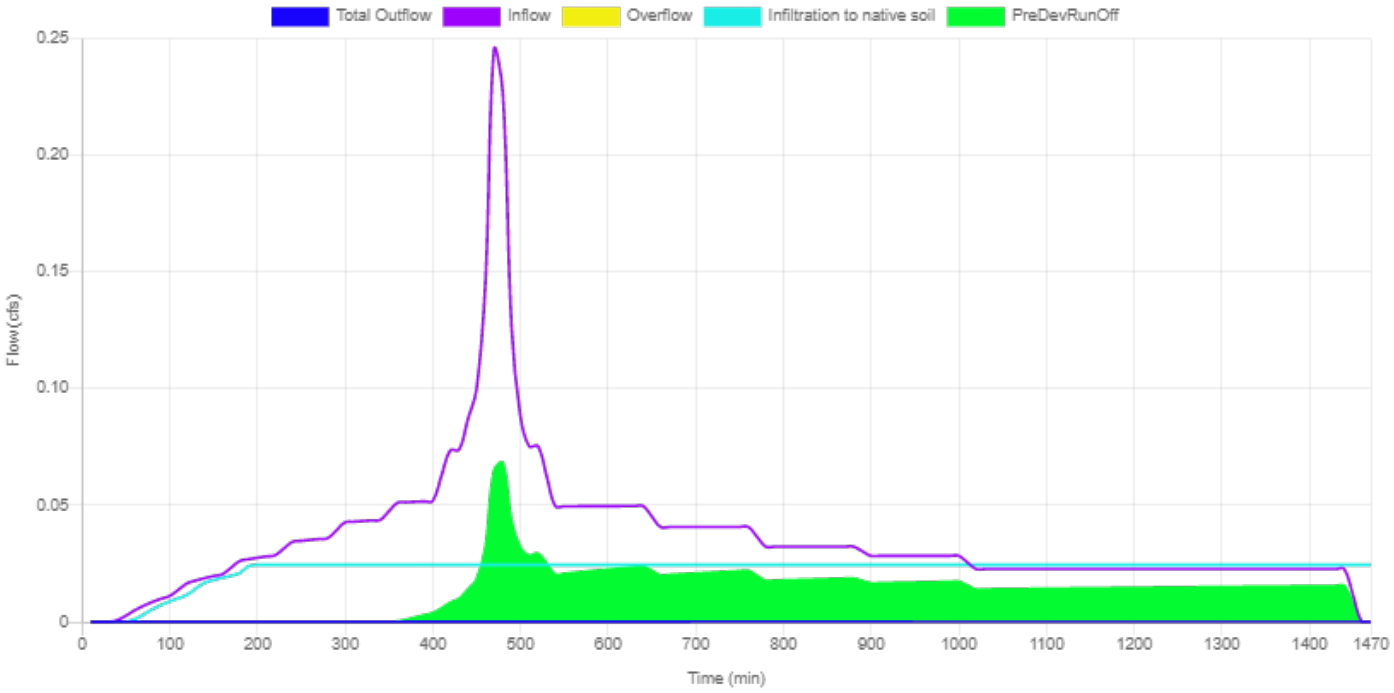
	100 %
Facility Facts	Total Facility Area (excluding freeboard) 1057.00 sq ft Sizing Ratio 8.76 %
Pollution Reduction Results	Pollution Reduction Score Pass Overflow Volume 0.00 cf Surface Capacity Used 0.00 %
Infiltration Results	Infiltration Score Pass Overflow Volume 0.00 cf Surface Capacity Used 89.96 %



Water Quality



10-Year



Presumptive Approach Calculator ver. 1.1

Catchment Data

Catchment ID:	**N1**
Date:	**03/15/09**
Permit Number:	**0**

Run Time: 5/14/2009 11:42:05 AM

Project Name:	**Milwaukie Park - Lower No. Parking Ca**
Project Address:	**-**
	Milwaukie, OR
Designer:	**SDH**
Company:	**David Evans and Associates, Inc.**

Drainage Catchment Information

Catchment ID	N1	
	Catchment Area	
Impervious Area	11,375	SF
Impervious Area	0.26	ac
Impervious Area Curve Number, CN_{imp}	98	
Time of Concentration, Tc, minutes	5	min.

Site Soils & Infiltration Testing Data

Infiltration Testing Procedure:	Open Pit Falling Head	
Native Soil Field Tested Infiltration Rate (I_{test}):	2	in/hr
Bottom of Facility Meets Required Separation From High Groundwater Per BES SWMM Section 1.4:	Yes	

Correction Factor Component

CF_{test} (ranges from 1 to 3)	2	

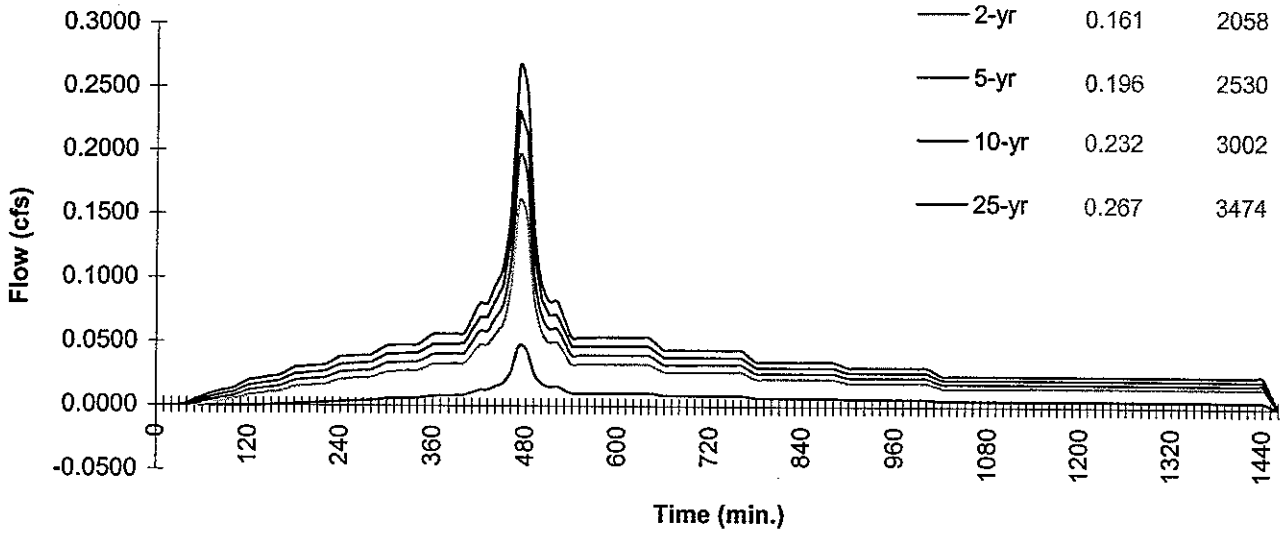
Design Infiltration Rates

I_{dsgn} for Native (I_{test} / CF_{test}):	1.00	in/hr
I_{dsgn} for Imported Growing Medium:	2.00	in/hr

Execute SBUH Calculations

SBUH Results

	Peak Rate (cfs)	Volume (cf)
PR	0.047	594
2-yr	0.161	2058
5-yr	0.196	2530
10-yr	0.232	3002
25-yr	0.267	3474



Printed: 5/14/2009 11:45 AM

Presumptive Approach Calculator ver. 1.1

Catchment ID: N1

Run Time: 5/14/2009 11:42:05 AM

Project Name: Milwaukie Park - Lower No. Parking Catch **Catchment ID:** N1 **Date:** 3/15/2009

Instructions:
1. Identify which Stormwater Hierarchy Category the facility.
2. Select Facility Type.
3. Identify facility shape of surface facility to more accurately estimate surface volume, except for Swales and sloped planters that use the PAC Sloped Facility Worksheet to enter data.
4. Select type of facility configuration.
5. Complete data entry for all highlighted cells.

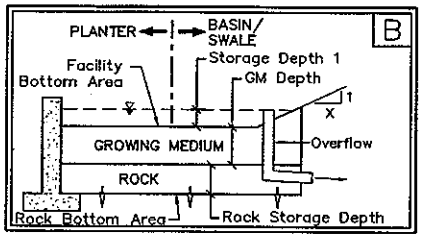
Catchment facility will meet Hierarchy Category: 1

Goal Summary:

Hierarchy Category	SWMM Requirement	RESULTS box below needs to display...		Facility configurations allowed
		Pollution Reduction as a	10-yr (aka disposal) as a	
1	On-site infiltration with a surface infiltration facility.	PASS	PASS	A or B

Facility Type = Planter (Sloped)

Facility Configuration: B



Refer to Sloped Facility Worksheet and enter Variable Parameters

Calculation Guide
Max. Rock Stor. Bottom Area
Per Swale Dims

DATA FOR ABOVE GRADE STORAGE COMPONENT

Infiltration Area = 1,057 sf
Surface Capacity Volume = 907.3 cf

Growing Medium Depth = 18 in
Freeboard Depth = N/A in

Surface Capacity at Depth 1 = 907 cf
GM Design Infiltration Rate = 2.00 in/hr
Infiltration Capacity = 0.049 cfs

BELOW GRADE STORAGE

Rock Storage Bottom Area = 994 sf
Rock Storage Depth = 12 in
Rock Void Ratio = 0.3

Rock Storage Capacity = 298 cf
Native Design Infiltration Rate = 1.00 in/hr
Infiltration Capacity = 0.023 cfs

RESULTS		Overflow Volume			
Pollution Reduction	PASS	0 CF	0%	Surf. Cap. Used	Run PAC
			10%	Rock Cap. Used	
10-yr	PASS	0 CF	98%	Surf. Cap. Used	
			100%	Rock Cap. Used	

FACILITY FACTS

Total Facility Area Including Freeboard = 1,228 SF
Sizing Ratio (Total Facility Area / Catchment Area) = 0.108

Current data has been exported:

Ramp_Lower_Park_Export.xls5/14/2009 11:45:23 AM

Printed: 5/14/2009 11:45 AM

Presumptive Approach Calculator Ver 1.1

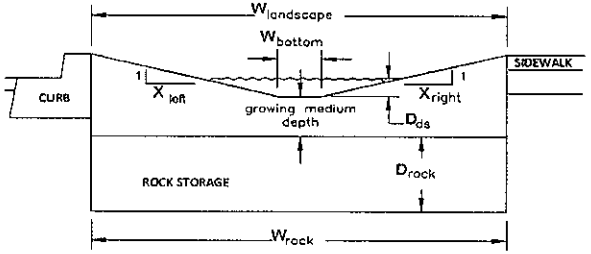
Instructions:

1. Refer to facility graphics and fill in all relevant facility parameters in the Data Entry table below. Data entry cells vary based on Facility Configuration selected on Facility Design Data tab.
2. Delete all facility parameters that may have been entered by the previous iteration that are no longer applicable.

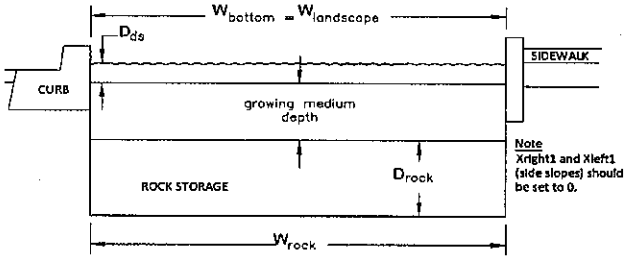
Run Time: 5/14/2009 11:42:05 AM

Project Name: Milwaukie Park - Lower No. Parking Catch **Date:** 3/15/2009 **Catchment ID:** N1

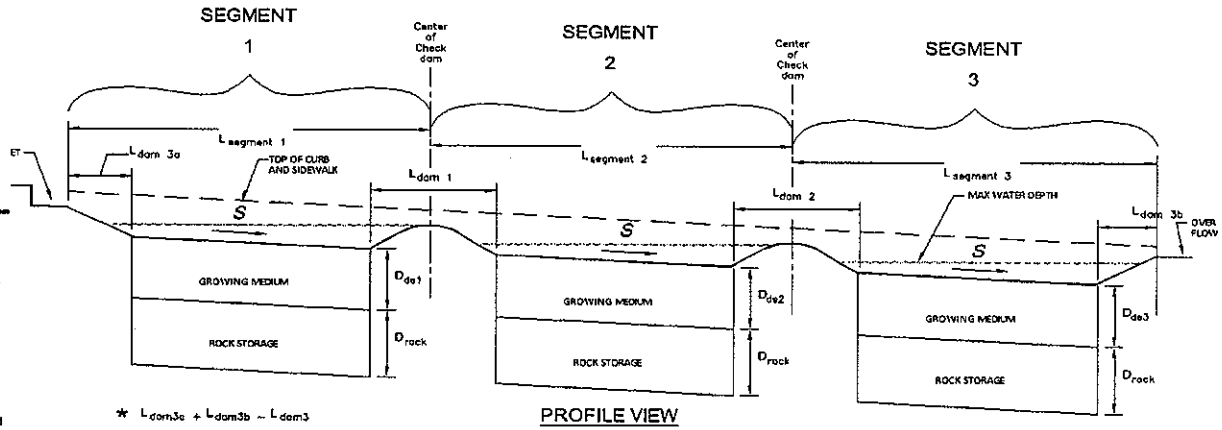
SWALE



SLOPED PLANTER



Note
Xright1 and Xleft1 (side slopes) should be set to 0.



Data Entry

Variable Description	Facility Segment	Length of facility segment	Downstream Check Dam Length	Longitudinal Facility Slope	Bottom Width	Side Slope Right	Side Slope Left	Downstream Depth	Landscape Width	Rock Storage Width	Rock Storage Depth	Rock Void Ratio
Unit		(ft)	(ft)	(ft/ft)	(ft)			(inches)	(ft)	(ft)	(inches)	
Variable Symbol		$L_{segment}$	L_{dam}	S	W_{bottom}	X_{right}:1	X_{left}:1	D_{ds}	$W_{landscape}$	W_{rock}	D_{rock}	v
1		20	3	0.015	7	0	0	12	7	7	12	0.3
2		20	2	0.015	7	0	0	12	7	7		
3		20	2	0.015	7	0	0	12	7	7		
4		20	2	0.015	7	0	0	12	7	7		
5		20	2	0.015	7	0	0	12	7	7		
6		20	2	0.015	7	0	0	12	7	7		
7		20	2	0.015	7	0	0	12	7	7		
8		20	3	0.015	7	0	0	12	7	7		
9												
10												

Error Messages

Worksheet Calculations

Oregon
Kate Brown, Governor

Department of Transportation
Region 1 Headquarters
123 NW Flanders Street
Portland, Oregon 97209
(503) 731.8200
FAX (503) 731.8259

5/9/22 ODOT #12546

ODOT Response

Project Name: Milwaukie Bay Park	**Applicant:** Jonathan Beaver
Jurisdiction: City of Milwaukie	**Jurisdiction Case #:** 22-001PA
Site Address: 11211 SE McLoughlin Blvd, Milwaukie, OR	**Tax Lot(s):** Various
State Highway: OR 99E	**Mileposts:** 5.83

The site of this proposed land use action is adjacent to OR 99E ODOT has permitting authority for this facility and an interest in ensuring that this proposed land use is compatible with its safe and efficient operation. **Please direct the applicant to the District Contact indicated below to determine permit requirements and obtain application information.**

COMMENTS/FINDINGS

ODOT has reviewed the applicant's proposal to redevelop Milwaukie Bay Park including new restroom, interactive water feature, playground, picnicking areas, gathering space, Trolley Trail, secondary pathways, and planting. North Clackamas Parks and Recreation (NCPRD) has been coordinating closely with ODOT on the Trolley Trail/sidewalk design and right of way considerations. ODOT and NCPRD will continue to work together on the following items:

- Through the ODOT surplus process, ODOT sold a small piece of right of way to facilitate the park redevelopment. The conditions of that sale are:
  1. Agreement that SB (southbound) pedestrian facility will be continuously functional, serving 99E throughout park redevelopment and construction of replacement sidewalk.
  2. Agreement on maintenance of replacement sidewalk and existing sidewalk by Parks or ODOT.
  3. 4f boundary set back from sidewalk – sidewalk along highway will be for transportation use, not recreational.

  NCPRD and ODOT will work with the City to ensure those conditions are fulfilled.
- A signal pole at the SE Monroe Street/OR 99E intersection may need to be moved to accommodate the new Trolley Trail alignment. Moving the signal pole would likely trigger additional improvements such as upgrading the ADA ramps on all four corners of the intersection. ODOT will provide more information on those requirements as signal design plans are developed and reviewed.
- All alterations within the State highway right of way are subject to the ODOT Highway Design Manual (HDM) standards. Alterations along the State highway but outside of ODOT right-of-way may also be subject to ODOT review pending its potential impact to

safe operation of the highway. If proposed alterations deviate from ODOT standards a Design Exception Request must be prepared by a licensed engineer for review by ODOT Technical Services. Preparation of a Design Exception request does not guarantee its ultimate approval. Until more detailed plans have been reviewed, ODOT cannot make a determination whether design elements will require a Design Exception.

Note: Design Exception Requests may take up to 3 months to process.

All ODOT permits and approvals must reach 100% plans before the District Contact will sign-off on a local jurisdiction building permit, or other necessary requirement prior to construction.

ADVISORY INFORMATION

Frontage Improvements and Right of Way

☒ Curb, sidewalk, cross walk ramp(s) and bikeways shall be constructed as necessary to be consistent with local, ODOT and ADA standards.

Permits and Agreements to Work in State Right of Way

☒ An ODOT Miscellaneous Permit must be obtained for all work in the highway right of way. When the total value of improvements within the ODOT right of way is estimated to be $100,000 or more, an agreement with ODOT is required to address the transfer of ownership of the improvement to ODOT. An Intergovernmental Agreement (IGA) is required for agreements involving local governments and a Cooperative Improvement Agreement (CIA) is required for private sector agreements. The agreement shall address the work standards that must be followed, maintenance responsibilities, and compliance with ORS 276.071, which includes State of Oregon prevailing wage requirements.

Note: If a CIA is required, it may take up to **6 months** to process.

☒ The applicant must obtain an ODOT permit to place trees in the state right of way. Tree spacing and design must be consistent with the ODOT Highway Design Manual section 4.2.6 (http://www.oregon.gov/ODOT/Engineering/Documents_RoadwayEng/HDM_04-Cross-Sections.pdf.

If proposed tree placement deviate from ODOT standards (such as placement in a planter strip), a Design Exception Request for clear zone must be prepared by a licensed engineer for review by ODOT Technical Services. Preparation of a Design Exception request does not guarantee its ultimate approval.

Note: It may take up to **3 months** to process a Design Exception.

☒ Illumination within the ODOT right of way must be in accordance with AASHTO illumination standards and the ODOT Lighting Policy and Guidelines, which states that local jurisdictions must enter into an Intergovernmental Agreement (IGA) with ODOT wherein the local jurisdiction is responsible for installation, maintenance, operation, and energy costs.

☒ An ODOT Miscellaneous Permit is required for connection to state highway drainage facilities. Connection will only be considered if the site's drainage naturally enters ODOT right of way. The applicant must provide ODOT District with a preliminary drainage plan showing impacts to the highway right of way.

A drainage study prepared by an Oregon Registered Professional Engineer is usually required by ODOT if:

1. Total peak runoff entering the highway right of way is greater than 1.77 cubic feet per second; or
2. The improvements create an increase of the impervious surface area greater than 10,758 square feet.

Please send a copy of the Land Use Notice including conditions of approval to:

ODOT Region 1 Planning
Development Review
123 NW Flanders St
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CITY OF **MILWAUKIE**

To: Planning Commission

Through: Laura Weigel, Planning Manager

From: Brett Kelver, Senior Planner

Date: August 16, 2022, for August 23, 2022, Work Session

Subject: Code Amendments for Downtown Design Review

ACTION REQUESTED

None. Staff is briefing the Planning Commission on proposed amendments to the zoning code regarding the downtown design review process.

BACKGROUND INFORMATION

At the August 9 work session, staff provided the Planning Commission with an orientation to the downtown design review code amendment project, which the Design and Landmarks Committee (DLC) has been working on since 2016. The effort has been focused on reorganizing the existing code to eliminate gaps and make the review process clearer for the applicant, staff, and review bodies. Although a substantial number of changes are proposed, including the repeal of the separate Downtown Design Guidelines document, the effort is not creating a wholesale new design palette for downtown, it is more of a realignment of existing design principles.

The DLC has spent countless hours discussing and debating whether to adjust specific numerical standards and how to organize the collection of design elements that are in the current code. Staff's recommendation is for the Planning Commission to focus its review and discussion on the bigger-picture issues and specific questions that the DLC and staff have identified.

Follow-up on Discussion Items from August 9 Work Session

The following issues were discussed at the August 9 meeting and warranted some follow-up:

- **Review types for residential-only and other new buildings**
  Two key recommendations from staff and the DLC involve the level of review for new buildings downtown.

  (1) For residential-only buildings, the recommendation is to remove the option to address the more general multifamily standards and guidelines in Milwaukie Municipal Code

(MMC) Subsection 19.505.3 and instead require them to adhere to the same design standards and guidelines as all other new buildings downtown. There would be two review tracks—Type I (clear and objective) and Type III (discretionary). It appears that the primary reason multifamily buildings were afforded so many options for review in the current code is that state law requires that residential-only developments have access to a clear and objective review, and the current code requires other new buildings downtown to go through at least Type II review, which is not considered clear and objective.

(2) With the proposal to ensure that a sufficiently robust set of design elements has well aligned guidelines, there will be greater clarity in the downtown design review process. It seems reasonable to understand that when any proposed new building (residential-only, mixed-use, or nonresidential) meets the applicable design standards, it should be reviewed and approved with administrative (Type I) review instead of being subjected to a Type II process with even limited discretion. Therefore, the recommendation is that all new buildings should have the option for either Type I or Type III review.

- **Public notice and NDA involvement for new buildings**
  Downtown serves as the living room for the entire community, and new downtown buildings are understandably something that the public wants to be informed about. Projects going through Type III review include a public notice component. Staff has suggested that Type I review for new buildings downtown could include some form of public notice, but with no opportunity for comment or discretion, since the project meets the clear and objective standards.

  At the August 9 work session, the Commission expressed interest in the idea of requiring the developer to meet with the Historic Milwaukie Neighborhood District Association (NDA) before an application for a new downtown building is submitted. This would allow an opportunity for the NDA to make suggestions and have a dialogue that might influence the design before it is set in stone.

  Staff conferred with the City Attorney on this question and confirmed that introducing a requirement for a pre-submittal meeting with the NDA raises concerns that need more in-depth discussion on a larger scale. It would introduce an element of discretion from a body whose membership is not appointed by City Council and that does not have as formal a hearing process as the DLC or Planning Commission. It also raises questions about equity, since applicants can vary greatly in their experience, organizational scale, resources, etc., and so may be treated and/or influenced by the NDA differently. Likewise, the NDA membership and meeting participation may vary in its representation of the diversity of the larger community.

  The spirit of the Planning Commission's suggestion is understood, but the challenge of finding ways to give the larger public a chance to hear about and influence proposals earlier in the process is one that demands careful consideration, and not just for downtown projects. If the Planning Commission agrees to allow Type I review for new buildings downtown that meet the clear and objective standards of MMC 19.508, staff suggests that some form of a simple, informative public notice be developed and that an NDA-meeting

requirement be tabled for the time being until the issue can be addressed in the larger context of overall public notification for land use decisions.

- **Step back question**
  One question that staff presented on August 9 had to do with the requirement that the upper stories above the base maximum height be stepped back at least 6 ft. The Axletree, Henley Place, and Coho Point buildings all went through discretionary review rather than meet the step back requirement, citing concerns over losing additional floor area and units. The Dogwood Station building was reviewed as a multifamily development and was not subject to the step back standard. All four buildings have been approved without providing a step back, raising the question of whether the requirement might unnecessarily push projects into Type III review.

  The DLC developed an alternative for the Planning Commission and City Council to consider—requiring a 6-ft step back on only 50% of the façade above the base maximum height, in sections at least 20 ft long. The DLC viewed this alternative as a comprise between the current step back requirement and removing it entirely, but it is not clear whether the alternative would be an improvement. Based on the recent developments downtown, building massing has not proven to be controversial. Other design standards, including those related to façade articulation, roofline transitions, and transparency have so far worked successfully to address concerns about building massing and engagement of the pedestrian realm.

  A commissioner suggested asking the public the question related to step back options, as building height was a topic when the bonus height allowance and step back requirement were adopted into the code. The specific suggestion was to use the Engage Milwaukie website to poll the public on the issue. Staff has considered this suggestion and believes that an online poll is not an appropriate tool for this question, as it is difficult to present graphically online and is architecturally technical in nature. The DLC was curious to see what the Planning Commission thinks about the issue, and staff believes a Commission-level discussion is currently preferable to a broader public engagement effort.

- **Eliminating design review for actions with no standards**
  As discussed in the August 9 meeting, staff believes there is no logic in requiring downtown design review for three or four actions that have no corresponding downtown design standards to use as approval criteria. There are some triggers for downtown design review that are recommended for elimination, such as modifications to parking areas or to landscaping, where other parts of the code will still provide a form of review if necessary (including the variance option). For downtown fences, if the Commission believes they should be regulated, then it would be advisable to develop some standards that can serve as a basis for review and approval. Otherwise, the code will continue to require review without sufficient guidance for applicants, staff, or the decision maker(s).

- **Townhouse density**
  As noted in the August 9 meeting, the recent changes to the residential zoning code for the Moderate Density Residential (R-MD) zone included a state-mandated increase in the

minimum density for townhouses, to 25 units per acre. The current standard for townhouses in the Downtown Mixed Use (DMU) zone is a minimum of 10 units. Staff recommends revising the DMU standard to a minimum of 25 units per acre, as the DMU zone is expected to provide more density than the R-MD zone, not less.

- **Building height—feet, not stories**
  The recent Dogwood Station project highlighted the discrepancy between the current code's use of both feet and number of stories to set the building height limit in the DMU. Although the proposed building met the maximum allowed height in feet, it had to go through the variance process because it went one story over. Staff has recommended eliminating the consideration of number of stories for building height, since feet are the truer measure of the actual height of a building.

  A commissioner expressed concern about stories being an easier measure of height to visualize than the number of feet, and that eliminating stories from the code would make it more difficult for the public to have a sense for building scale. Staff agrees but notes that "stories" does not have to remain in the code to be used to describe a building in the staff report and other public information presented about a project. Maintaining two measures of building height in the code is problematic, and it is easy enough to describe a project in the publicly available materials using the number of stories.

- **Request for additional standards—public art, carbon neutral buildings, electric vehicle charging requirements**
  Commissioner Hemer shared a list of three topics he would like to see introduced into the downtown design standards as requirements for new downtown buildings—for public art, carbon-neutral buildings, and electric vehicle charging.

  Introducing public art as a standard is beyond the scope of this project, as it would need to be thoroughly researched, discussed, and vetted. Determining the parameters of what is art is highly discretionary and hard to quantify. (What is art? How big or how much art should be required? Etc.) The Planning Commission could recommend to City Council that this subject be taken up when time permits.

  The DLC did discuss establishing some design standards related to sustainability but decided to defer that issue until a larger effort to develop green building standards for new buildings citywide could be undertaken. There are also some restrictions for zoning rules that aim to require more than the current building code. The current DMU code provides height-related incentives for green buildings but does not require them.

  Finally, new statewide requirements for electric vehicle (EV) charging have recently come into effect and other rules are on the way in early 2023. These new rules relate to requiring that new commercial, mixed-use, and multifamily buildings ensure that a minimum number of the parking spaces provided have the capacity for EV charging. To be clear, that does not extend to requiring that actual EV chargers be installed, only to providing the most basic infrastructure (e.g., conduit, panel capacity, physical space) that will make it easier to install actual chargers in the future. Like the carbon-neutral issue discussed above, there are limitations on how far the city can go in requiring things that affect building code

requirements (such as for electrical systems or green building elements). Staff is briefing City Council on this issue at a work session on August 16—the commissioners are encouraged to view that session for more background.

Incentives for carbon-neutral building design and EV charging could be developed, but, as noted above, these are large subjects that are above and beyond the scope of this project.

ATTACHMENTS

None

CITY OF MILWAUKIE

To:	Planning Commission
Through:	Laura Weigel, Planning Manager
From:	Vera Kolias, Senior Planner Adam Heroux, Associate Planner
Date:	August 16, 2022 for August 23, 2022 Work Session
Subject:	Zone consolidation: High Density Residential Zones

ACTION REQUESTED

Planning Commission is asked to review and provide feedback on the staff proposal to update code language in the high density residential zones. This work session focuses on completing step two of a two-step process for consolidation of these zones.

ANALYSIS

Consolidation of the high density residential zones was originally envisioned as part of the Phase 1 Comprehensive Plan Implementation project. However, due to the complexity involved in the permitted uses and their respective review processes across the high density zones, the effort was paused until it was restarted at the Planning Commission's June 28, 2022 work session. The first work session focused on definitions of allowed uses in the zones for various types of adult care and senior housing. The second work session on August 9, 2022 focused on boarding houses.

Review Process

- Step 1: Revise definitions and terminology for allowed residential uses
- Step 2: Review and potentially revise the review process for each use and consider adding additional permitted uses; potentially consolidate the city's existing five high density residential zones

Project Background

The previous two work sessions completed the first step in the two-step process for consolidation of the high density zones.

August 9, 2022: The Planning Commission reviewed the definition and other questions related to boarding houses.

June 28, 2022: The Planning Commission reviewed the first set of definitions.

The purpose of this staff report is to provide information and background for Step 2 which addresses the review processes across the high density zones with an eye toward consolidation of the zones.

Analysis

During the middle housing code amendment process, consolidation of both the medium and high density zones was discussed. However, as noted during the August 5, 2021 work session, a number of inconsistencies exist between the high density zones. To consolidate the zones, a decision would have to be made to either change some uses to be permitted by right that are now subject to Type III Conditional Use review or make those same uses now subject to Type III review where they are permitted by right. This is particularly concerning when addressing multifamily housing, for example. Because the city's goal is to provide more opportunities for the development of different types of housing, staff does not recommend making these types of developments subject to a Type III review in the R-2, R-1, and R-1-B zones. Conversely, to allow multifamily development by right in the R-3 and R-2.5 zones during the middle housing discussion would have introduced a new topic to the discussion that would have distracted from the main focus of this project which was to provide middle housing opportunities throughout the residential zones in the city.

The key differences between the high density zones are:

- Where manufactured dwelling parks are permitted
- How multi-unit developments are permitted (Conditional Use or Permitted outright)
- How residential care facilities are permitted (Conditional Use or Permitted outright)
- Which commercial uses are permitted and what type of land use review is required (Conditional Use or Permitted outright)

The following tables show a progression of the proposed consolidation, starting with the existing code but updated with revised uses and nomenclature as discussed in earlier work sessions.

Table 1 shows the existing code updated with revised uses as discussed in the earlier work sessions. Highlighted sections identify the key differences.

Residential Uses	Table 1. Existing Code (with new uses)				
	R3	***R2.5***	***R2***	***R1***	***R1B***
Single Detached Dwelling	P	P	P	P	P
Duplex	P	P	P	P	P
Triplex	P	P	P	P	P
Quadplex	P	P	P	P	P
Townhouse/Rowhouse	P	P	P	P	P
Cottage Cluster	P	P	P	P	P
Adult foster/care homes	P	P	P	P	P
Accessory Dwelling Unit	P	P	P	P	P
Manufactured Dwelling Park	III	N	N	N	N
Multi-unit Development	CU	CU	P	P	P
Micro unit development	CU	CU	CU	CU	CU
Residential Care Facility	CU	CU	P	P	P
Assisted Living	-	-			
Nursing Facility	-	-			
Memory care community	-	-			
Commercial Uses	-	-			
Office	CU	CU	CU	CU	P
Hotel or motel	N	N	N	N	CU
Bed and breakfast or vacation rental	CU	CU	CU	CU	CU
Accessory and Other Uses					
Accessory Use	P	P	P	P	P
Agricultural or horticultural	P	P	P	P	P
Community Service Use	CSU	CSU	CSU	CSU	CSU
Home occupation	P	P	P	P	P
Short-term rental	P	P	P	P	P

Table 2 is the proposed consolidation from 5 zones to 3 with the following key differences:

1. Multi-unit housing is allowed by right in the R3 instead of through a CU process
2. Residential care facilities are permitted by right instead of through a CU
3. Staff proposes to add business/personal services (such as salons and pet groomers) to the list of allowed commercial activities based on the numerous requests for such businesses in the R-1-B zone.
4. Staff also proposes to consolidate office terms from three types to two types and ensure their consistent use throughout the code to reduce confusion. This would generally mimic the use categories recently adopted in the DMU and NMIA zones (see additional discussion starting on page 6 of this staff report).

Residential Uses	Table 2. Proposed Consolidation		
	R3	***R2***	***R1B***
Single Detached Dwelling	P	P	P
Duplex	P	P	P
Triplex	P	P	P
Quadplex	P	P	P
Townhouse/Rowhouse	P	P	P
Cottage Cluster	P	P	P
Adult foster/care homes	P	P	P
Accessory Dwelling Unit	P	P	P
Manufactured Dwelling Park	III	N	N
Multi-unit Development	P	P	P
Micro-unit housing	P	P	P
Residential Care Facility	P	P	P
Assisted Living	-	-	
Nursing Facility	-	-	
Memory care community	-	-	
Commercial Uses	-	-	
Personal/Business Services	CU	CU	P
Office ***Production related office*** ***Professional and administrative office***	CU	CU	P
Hotel or motel	N	N	CU
Bed and breakfast or vacation rental	CU	CU	CU
Accessory and Other Uses			
Accessory Use	P	P	P
Agricultural or horticultural	P	P	P
Community Service Use	CSU	CSU	CSU
Home occupation	P	P	P
Short-term rental	P	P	P

R3 = R3, R2.5
R2 = R2, R1
R1B = R1B

Development Standards

A consolidation of the zones would also affect development standards, which are currently different across the zones for various standards. The main differences are for maximum building height, maximum lot coverage, minimum vegetation, and density.

Table 3 proposes to consolidate the standards to be consistent with the intent and purpose of the high density zones as well as the goals of the comprehensive plan. The proposed density range for the new R2 zone is an average between the existing R2 and R1 values.

	Existing Code				
Standard	***R3***	***R2.5***	***R2***	***R1***	***R1B***
Max Building height	35 ft	35 ft	45 ft	45 ft	45 ft
Max lot coverage	40%	40%	45%	45%	50%
Min vegetation	35%	35%	15%	15%	15%
density (du/ac)					
min.	11.6	11.6	11.6	25	25
max.	14.5	17.4	17.4	32	32

Table 3. Proposed Consolidation

Standard	***R3***	***R2***	***R1B***
Max Building height	35 ft	45 ft	45 ft
Max lot coverage	40%	45%	50%
Min vegetation	35%	15%	15%
density (du/ac)			
min.	11.6	18.3	25
max.	17.4	24.7	32

R3 = R3; R-2.5
R2 = R2, R1
R1B = R1B

Additionally, staff proposes to eliminate the "Minimum Site Size" requirements for multi-unit developments in the R-2, R-1, and R-1-B zones established in 19.302.5.F.2.

Excerpt from 19.302.5.F.2, below.

> *2. Multifamily development in the R-2, R-1, and R-1-B Zones is subject to the minimum site size requirements in Table 19.302.5.F.2. In the event that the minimum site size requirements conflict with the development densities in Subsection 19.302.4.C.1, the site size requirements in Table 19.302.F.2 shall prevail.*

Table 19.302.5.F.2 Minimum Site Size for Multifamily Development in the R-2, R-1, and R-1-B Zones		
Units	**R-2 Zone**	**R-1 and R-1-B Zone**
First Dwelling Unit	5,000 sq ft per unit	5,000 sq ft per unit
Additional Dwelling Units	1,500 sq ft per unit	1,400 sq ft per unit

These site size requirements may unintentionally discourage or prevent development of multi-unit housing. As with other zones, staff recommends relying upon the density standards to regulate development size, rather than the size of the lot. This recommendation also addresses the issue that middle housing does not have maximum densities; this would bring multi-unit development more in line with the goals and objectives of the high density zones.

Office Uses

During the consolidation process staff also noticed there are some inconsistencies in the code around the term office use and propose to remedy these inconsistencies. As part of the Moving Forward Milwaukie project in 2015, the downtown code amendments proposed a variety of types of offices in an effort to distinguish certain types when located at street level. These types were meant to acknowledge that some office types can help activate the street because they generate foot traffic (such as banks or medical offices) while others do not (such as data processing or call centers). In the current code, these office types replaced the previous generic "office" or "general office" use categories:

> ***Office:***
>
> ***"Production-related office"*** *means offices that are characterized by activities that, while conducted in an office-like setting, involve less face-to-face customer contact and do not tend to generate foot traffic. Their operations are less service-oriented than traditional office uses and focus on the development, testing, research, production, processing, packaging, or assembly of goods and products. Examples include: software and internet content development and publishing; telecommunication service providers; data processing; television, video, radio, and internet studios and broadcasting; scientific and technical services; call centers; and medical and dental labs.*
>
> ***"Professional and administrative office"*** *means professional, executive, management, or administrative offices of firms or organizations. Typical uses include offices for professionals such as physicians, dentists, lawyers, architects, engineers, artists, musicians, designers, teachers, accountants, or others who through training are qualified to perform services of a professional nature, and where no storage or sale of merchandise exists.*
>
> ***"Traditional office"*** *means offices that are characterized by activities that generally focus on business, government, professional, medical, or financial services. These office uses generally involve a high level of face-to-face customer contact and are typically expected to generate foot traffic. Examples include: professional services such as lawyers, architects, or accountants; financial businesses such as lenders,*

brokerage houses, bank headquarters, or real estate agents; sales offices; government offices and public utility offices; and medical and dental clinics.

While these office types are regulated in both the DMU and NMIA zones, they were not carried over into the other commercial zones in the city, which still retain the singular "office" use category or some variation on that category. Because office uses are permitted either outright or as conditional uses in the high density zones, this is an opportunity to create consistency throughout the code. It is also an opportunity to consolidate the types as there is some overlap between the definitions for "professional and administrative office" and "traditional office".

Staff proposes to amend the office definition as follows:

- Keep production-related office as is
- Consolidate the other two office types:
    - "Professional and administrative office" means professional, executive, management, or administrative offices of firms or organizations, including government, medical, or financial services. These office uses generally involve a high level of face-to-face customer contact and are typically expected to generate foot traffic. Typical uses include offices for professionals such as physicians, dentists, lawyers, architects, engineers, artists, musicians, designers, teachers, accountants, financial businesses such as lenders, brokerage houses, bank headquarters, or real estate agents; sales offices; government offices and public utility offices; and medical and dental clinics, or others who through training are qualified to perform services of a professional nature, and where no storage or sale of merchandise exists.

Further, staff proposes to:

- Consolidate the terms in the use tables for the DMU and NMIA zones
- Revise the use tables in the other commercial zones that currently allow offices to allow both types of offices.

Previous Planning Commission Discussion

At the August 9 work session, the Commission had questions about the difference between micro-unit housing and transitional housing. Staff proposes to clarify the difference by removing the word "may" from the definition of transitional housing which bolsters its definition as being specifically associated with shelters, rehabilitation facilities, and similar uses. Further, the micro-unit housing definition has been revised to specify that these developments are permitted where multi-unit housing is permitted. While transitional housing may take the form of micro-unit housing, the reverse is not true.

Proposed definitions:

"Micro-unit housing" means a building wherein five (5) or more rooms are offered for rent and where rooms, individually or collectively, do not constitute separate dwellings. Each room is without a kitchen, but may have provision for counter-top appliances and refrigerator. The toilet/bath may be private or shared with other room(s). Micro-units are designed to be occupied by long-term residents on a monthly or longer basis. Micro-unit housing developments are

permitted outright in all residential zones that permit multi-unit development. In each case, density standards of the zone shall determine number of units allowed.

"Temporary or transitional facility" means a facility which ~~may~~ provides temporary or transitional services to families or individuals, including lodging where the average stay is 60 days or less. Such facilities shall be classified as community service uses and ~~may~~ includes shelters, community counseling centers, rehabilitation centers, and detention and detoxification facilities.

Staff is researching the eco-housing development mentioned at the work session and will provide additional information during the August 23 work session.

Attachment 1 is the package of proposed code amendments in underline/strikeout format and includes all the above proposed code changes.

Key Questions for Discussion

1. Does the Planning Commission support the proposed amendments regarding multi-unit development and residential care facilities (that they should be permitted by right in all HDR zones)?
2. Does the Planning Commission support the inclusion of business/personal services as permitted commercial uses?
3. Does the Planning Commission support the proposed amendments regarding office uses?
    - Does the Planning Commission support allowing offices and personal/business services by right in the R-2 and R-3 zones? This is a key difference between the R-1-B and the other high density zones. The R-1-B is generally considered a transition zone between the DMU and the residential zones.
4. Should manufactured dwelling parks be permitted in any other high density zones in addition to the R-3 zone?

NEXT STEPS

As previously discussed, the proposed process was for staff to work through Steps 1 and 2 with the Planning Commission before proceeding to Council to discuss the proposed code revisions. A public hearing with the Commission is scheduled on September 27 and a City Council work session is scheduled on October 18, 2022 to discuss the proposed code revisions

ATTACHMENTS

1. Proposed code amendments – underline/strikeout

Underline/Strikeout Amendments

Title 19 Zoning Ordinance

CHAPTER 19.200 DEFINITIONS AND MEASUREMENTS

19.201 DEFINITIONS

~~"Boarding house" means a building or portion thereof without separate housekeeping facilities to be occupied, or which is occupied primarily, by persons paying consideration for sleeping purposes where meals may or may not be provided, and which is not occupied as a single-family unit. Lodging capacity is subject to provisions of the Uniform Building Code.~~

~~"Congregate housing facility" means a multidwelling-unit, permanent housing center with individual or common housekeeping facilities and services provided for residents who require or desire a more supportive living environment than typically available to residents in traditional apartment or single-family residential housing. These facilities may provide regular on-premises supervision by registered medical staff or care providers. Occupants of these facilities may include the elderly, disabled, handicapped, or other persons as defined in the Federal Fair Housing Amendments Act of 1988. Congregate housing facilities are permitted outright in all residential zones that permit multifamily apartments, and they require conditional use approval in those residential zones that allow multifamily uses conditionally. In each case, density standards of the zone shall determine number of units allowed.~~

Office:

"Production-related office" means offices that are characterized by activities that, while conducted in an office-like setting, involve less face-to-face customer contact and do not tend to generate foot traffic. Their operations are less service-oriented than traditional office uses and focus on the development, testing, research, production, processing, packaging, or assembly of goods and products. Examples include: software and internet content development and publishing; telecommunication service providers; data processing; television, video, radio, and internet studios and broadcasting; scientific and technical services; call centers; and medical and dental labs.

"Professional and administrative office" means professional, executive, management, or administrative offices of firms or organizations, including government, medical, or financial services. These office uses generally involve a high level of face-to-face customer contact and are typically expected to generate foot traffic. Typical uses include offices for professionals such as physicians, dentists, lawyers, architects, engineers, artists, musicians, designers, teachers, accountants, financial businesses such as lenders, brokerage houses, bank headquarters, or real estate agents; sales offices; government offices and public utility offices; and medical and dental clinics, or others who through training are qualified to perform services of a professional nature, and where no storage or sale of merchandise exists.

~~"Traditional office" means offices that are characterized by activities that generally focus on business, government, professional, medical, or financial services. These office uses generally~~

~~involve a high level of face-to-face customer contact and are typically expected to generate foot traffic. Examples include: professional services such as lawyers, architects, or accountants; financial businesses such as lenders, brokerage houses, bank headquarters, or real estate agents; sales offices; government offices and public utility offices; and medical and dental clinics.~~

Residential Uses and Structures:

"Adult foster/care homes" means a dwelling unit operated to provide a permanent residence and licensed care for up to five people who are elderly, disabled, handicapped, or otherwise require such a residence.

"Micro-unit housing" means a building wherein five (5) or more rooms are offered for rent and where rooms, individually or collectively, do not constitute separate dwellings. Each room is without a kitchen, but may have provision for counter-top appliances and refrigerator. The toilet/bath may be private or shared with other room(s). Micro-units are designed to be occupied by long-term residents on a monthly or longer basis. Micro-unit housing developments are permitted outright in all residential zones that permit multi-unit development. In each case, density standards of the zone shall determine number of units allowed.

"Multi-unit development" means a structure that contains five or more dwelling units that share common walls or floor/ceilings with one or more units. The land underneath the structure is not divided into separate lots. Multi-unit development includes structures commonly called garden apartments, apartments, and condominiums. Residential care facilities are considered a type of multi-unit development.

~~"Residential home" means a dwelling unit operated as a single housekeeping unit for the purpose of providing a permanent residence—which includes food, shelter, personal services, and care—for the elderly, disabled, handicapped, or others requiring such a residence, as defined by the Federal Fair Housing Amendments Acts of 1988.~~

~~"Senior and retirement housing" means a multiunit dwelling where persons who are of retirement age reside. Activity levels, including traffic generation and parking of cars, are generally lower than for other types of housing. Common facilities for eating and activities may be provided; nursing care, medical supplies, and personal services may be provided on a limited basis. One person may own the entire complex, or each dwelling unit may be owned separately as in a condominium.~~

"Residential care facility" means a licensed living facility for more than five (5) non-related persons, which provides specialized care, supervision, treatment or training, or a combination of these for residents. This use classification includes, but is not limited to assisted living facilities, nursing facilities, and memory care facilities.

"Temporary or transitional facility" means a facility which ~~may~~ provides temporary or transitional services to families or individuals, including lodging where the average stay is 60 days or less. Such facilities shall be classified as community service uses and ~~may~~ includes shelters, community counseling centers, rehabilitation centers, and detention and detoxification facilities.

CHAPTER 300 BASE ZONES

19.301 MODERATE DENSITY RESIDENTIAL ZONES

Table 19.301.2 Moderate Density Residential Uses Allowed		
Use	**R-MD**	**Standards/Additional Provisions**
Residential Uses		
Single detached dwelling	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Duplex	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Triplex	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Quadplex	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Townhouse	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development **Subsection 19.505.5** Standards for Townhouses
Cottage Cluster	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development **Subsection 19.505.4** Cottage Cluster Housing
~~Residential home~~ Adult foster/care home	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Accessory dwelling unit	P	**Subsection 19.910.1** Accessory Dwelling Units
Manufactured dwelling park	III	**Subsection 19.910.3** Manufactured Dwelling Parks.
~~Senior and retirement housing~~ Residential care facility Examples include: *assisted living, nursing facilities, and memory care communities*	~~CU~~ CSU	~~**Subsection 19.905.9.G** Senior and Retirement Housing~~ **Subsection 19.904.8** Specific Standards for Residential Care Facilities

19.302 HIGH DENSITY RESIDENTIAL ZONES

The high density residential zones are Residential Zone R-3, , Residential Zone R-2, , and Residential-Business Office Zone R-1B. These zones implement the High Density residential land use designations in the Milwaukie Comprehensive Plan.

19.302.1 Purpose

The high density residential zones are intended to create and maintain higher density residential neighborhoods that blend a range of housing types with a limited mix of neighborhood-scale commercial, office, and institutional uses.

19.302.2 Allowed Uses in High Density Residential Zones

Uses allowed, either allowed by right or conditionally, in the high density residential zones are listed in Table 19.302.2 below. Similar uses not listed in the table may be allowed through a Director's Determination pursuant to Section 19.903. Notes and/or cross references to other applicable code sections are listed in the "Standards/Additional Provisions" column.

See Section 19.201 Definitions for specific descriptions of the uses listed in the table.

Table 19.302.2 High Density Residential Uses Allowed						
Use	R-3	R-2.5	R-2	R-1	R-1-B	Standards/ Additional Provisions
Residential Uses						
Single detached dwelling	P	P	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Duplex	P	P	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Triplex	P	P	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Quadplex	P	P	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Residential home	P	P	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Accessory dwelling unit	P	P	P	P	P	**Subsection 19.910.1** Accessory Dwelling Units
Manufactured dwelling park	III	N	N	N	N	**Subsection 19.910.3** Manufactured Dwelling Parks
Townhouse	P	P	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development **Subsection 19.505.5** Standards for Townhouses
Cottage cluster	P	P	P	P	P	**Subsection 19.505.1** Single

						Detached and Middle Housing Residential Development **Subsection 19.505.4** Cottage Cluster Housing

Table 19.302.2 CONTINUED **High Density Residential Uses Allowed**						
Use	**R-3**	**R-2.5**	**R-2**	**R-1**	**R-1-B**	**Standards/ Additional Provisions**
Residential Uses CONTINUED						
Multi-unit Housing	CU	CU	P	P	P	**Subsection 19.505.3** Multi-Unit Housing **Subsection 19.302.5.F** Residential Densities **Subsection 19.302.5.H** Building Limitations
Congregate housing facility	CU	CU	P	P	P	**Subsection 19.505.3** Multi-Unit Housing **Subsection 19.302.5.F** Residential Densities **Subsection 19.302.5.H** Building Limitations
Senior and retirement housing	CU	CU	CU	P	P	**Subsection 19.905.9.G** Senior and Retirement Housing
Boarding house	CU	CU	CU	CU	CU	**Section 19.905** Conditional Uses
Commercial Uses						
Office	CU	CU	CU	CU	P	**Subsection 19.302.3** Use Limitations and Restrictions
Personal/Business Services	CU	CU	CU	CU	P	
Hotel or motel	N	N	N	N	CU	**Section 19.905** Conditional Uses
Bed and breakfast or vacation rental	CU	CU	CU	CU	CU	**Section 19.905** Conditional Uses
Accessory and Other Uses						
Accessory use	P	P	P	P	P	**Section 19.503** Accessory Uses
Agricultural or horticultural use	P	P	P	P	P	**Subsection 19.302.3** Use Limitations and Restrictions
Community service use	CSU	CSU	CSU	CSU	CSU	**Section 19.904** Community Service Uses
Home occupation	P	P	P	P	P	**Section 19.507** Home Occupation Standards
Short-term rental	P	P	P	P	P	**Section 19.507** Home Occupation Standards

Table 19.302.2 **High Density Residential Uses Allowed**				
Use	**R-3**	**R-2**	**R-1-B**	**Standards/ Additional Provisions**

Residential Uses				
Use	**R-3**	**R-2**	**R-1-B**	**Standards/ Additional Provisions**
Single detached dwelling	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Duplex	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Triplex	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Quadplex	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Adult foster/care home	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development
Accessory dwelling unit	P	P	P	**Subsection 19.910.1** Accessory Dwelling Units
Manufactured dwelling park	III	N	N	**Subsection 19.910.3** Manufactured Dwelling Parks
Townhouse	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development **Subsection 19.505.5** Standards for Townhouses
Cottage cluster	P	P	P	**Subsection 19.505.1** Single Detached and Middle Housing Residential Development **Subsection 19.505.4** Cottage Cluster Housing
Multi-unit Housing	~~CU~~ P	P	P	**Subsection 19.505.3** Multi-Unit Housing **Subsection 19.302.5.F**

				Residential Densities **Subsection 19.302.5.H** Building Limitations
Micro unit housing	~~CU~~ P	P	P	**Subsection 19.505.3** Multi-Unit Housing **Subsection 19.302.5.F** Residential Densities **Subsection 19.302.5.H** Building Limitations
Residential Care Facility Examples include: assisted living, nursing facilities, and memory care communities	P	P	P	**Subsection 19.505.3** Multi-Unit Housing **Subsection 19.302.5.F** Residential Densities **Subsection 19.302.5.H** Building Limitations
Office: Production-related office and Professional and administrative office	CU	CU	P	**Subsection 19.302.3** Use Limitations and Restrictions
Personal/Business Services	CU	CU	P	
Hotel or motel	N	N	CU	**Section 19.905** Conditional Uses
Bed and breakfast or vacation rental	CU	CU	CU	**Section 19.905** Conditional Uses
Accessory use	P	P	P	**Section 19.503** Accessory Uses
Agricultural or horticultural use	P	P	P	**Subsection 19.302.3** Use Limitations and Restrictions
Community service use	CSU	CSU	CSU	**Section 19.904** Community Service Uses
Home occupation	P	P	P	**Section 19.507** Home Occupation Standards
Short-term rental	P	P	P	**Section 19.507** Home Occupation Standards

~~**Table 19.302.4**~~ ~~**High Density Residential Development Standards**~~						
~~**Standard**~~	~~**R-3**~~	~~**R-2.5**~~	~~**R-2**~~	~~**R-1**~~	~~**R-1-B**~~	~~**Standards/**~~ ~~Additional Provisions~~
~~**A. Lot Standards**~~						
~~Minimum lot size (sq ft)~~	~~1,500~~					~~**Subsection 19.501.1** Lot Size~~

			Exceptions **Subsection 19.505.4** Cottage Cluster Housing **Subsection 19.505.5** Townhouses
Minimum lot width (ft)	20		-
Minimum lot depth (ft)	70		
Minimum street frontage requirements (ft) Townhouse Standard lot Flag lot Double flag lot	- 20 35 25 25		
B. Development Standards			
Minimum yard requirements for primary structures (ft) Front yard Side yard Street side yard Rear yard	- 20 See Subsection 19.302.5.A 15 15		
Maximum building height for primary structures	35 ft	45 ft	**Subsection 19.302.5.E** Height Exceptions **Subsection 19.501.3** Building Height and Side Yard Height Plane Exceptions **Subsection 19.302.5.I** Transition Measures

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Table 19.302.4 CONTINUED High Density Residential Development Standards						
Standard	R-3	R-2.5	R-2	R-1	R-1B	Standards/ Additional Provisions
- Side yard height plane limit - Height above ground at minimum required side yard depth (ft) - Slope of plane (degrees)		- 20 45			- 25 45	**Subsection 19.501.3** Building Height and Side Yard Height Plane Exceptions
- Maximum lot coverage (percent of total lot area)		40%		45%	50%	**Section 19.201 "Lot coverage"** definition
- Minimum vegetation (percent of total lot area)		35%			15%	**Subsection 19.504.7** Minimum Vegetation **Subsection 19.302.5.D** Front Yard Minimum Vegetation **Subsection 19.302.5.C** Minimum Vegetation
C. Other Standards						
- Density requirements (dwelling units per acre) - Minimum - Maximum[2]	- 11.6 14.5		- 11.6 17.4		- 25.0 32.0	**Subsection 19.202.4** Density Calculations **Subsection 19.302.5.F** Residential Densities **Subsection 19.501.4** Density Exceptions

Table 19.302.4 High Density Residential Development Standards				
Standard	**R-3**	**R-2**	**R-1-B**	**Standards/** Additional Provisions
A. Lot Standards				
Minimum lot size (sq ft)	1,500			**Subsection 19.501.1** Lot Size Exceptions **Subsection 19.505.4** Cottage Cluster Housing **Subsection 19.505.5** Townhouses
Minimum lot width (ft)	20			
Minimum lot depth (ft)	70			
Minimum street frontage requirements (ft) Townhouse Standard lot Flag lot Double flag lot	- 20 35 25 25			
B. Development Standards				
Minimum yard requirements for primary structures (ft) Front yard Side yard Street side yard Rear yard	- 20 See Subsection 19.302.5.A 15 15			
Maximum building height for primary structures	35 ft	45 ft		**Subsection 19.302.5.E** Height

			Exceptions **Subsection 19.501.3** Building Height and Side Yard Height Plane Exceptions **Subsection 19.302.5.I** Transition Measures

Table 19.302.4 CONTINUED

High Density Residential Development Standards

Standard	R-3	R-2	R-1B	Standards/ Additional Provisions
Side yard height plane limit Height above ground at minimum required side yard depth (ft) Slope of plane (degrees)	- 20 45	- 25 45	 25 45	**Subsection 19.501.3** Building Height and Side Yard Height Plane Exceptions
Maximum lot coverage (percent of total lot area)	40%	45%	50%	**Section 19.201 "Lot coverage"** definition
Minimum vegetation (percent of total lot area)	35%	15%	15%	**Subsection 19.504.7** Minimum Vegetation **Subsection 19.302.5.D** Front Yard Minimum Vegetation **Subsection 19.302.5.C** Minimum Vegetation
C. Other Standards				
Density requirements (dwelling units	-	-	-	**Subsection 19.202.4** Density Calculations

per acre)				**Subsection 19.302.5.F** Residential Densities
Minimum	11.6	18.3	25.0	
Maximum[2, 3]	14.5	24.7	32.0	**Subsection 19.501.4** Density Exceptions

[3] The density for micro unit developments is calculated as follows: four micro-unit rooms equal one dwelling unit.

19.302.4 Development Standards

In the high density residential zones, the development standards in Table 19.302.4 apply. Notes and/or cross references to other applicable code sections are listed in the "Standards/Additional Provisions" column. Additional standards are provided in Section 19.302.5.

The standards in Subsection 19.302.4 are not applicable to cottage cluster development except where specifically referenced by Subsection 19.505.4.

See Sections 19.201 Definitions and 19.202 Measurements for specific descriptions of standards and measurements listed in the table.

In the high density residential zones the following housing types are permitted on lot sizes as follows:

Between 1,500 to 2,999 sq ft: Townhouse, Cottage in a cottage cluster

Between 3,000 to 4,999 sq ft: Duplex, Triplex, and Quadplex.

Between 5,000 to 6,999 sq ft: Single Detached Dwelling, Single Detached Dwelling with up to 2 ADUs, Duplex, Triplex, and Quadplex.[1]

7,000 sq ft and up: Single Detached Dwelling, Single Detached Dwelling with up to 2 ADUs, Duplex, Triplex, Quadplex, Cottage Cluster, Multi-Unit Housing.

All other uses require a minimum lot size of 5,000 sq ft.

19.302.5 Additional Development Standards

F. Residential Densities

1. The minimum and maximum development densities in Subsection 19.302.4.C.1 are applicable for land divisions, replats that change the number of lots, and any development that would change the number of dwelling units on a lot. Development of a single detached dwelling or accessory dwelling units are exempt from the minimum and maximum density requirements. Middle housing, except for townhouses, is exempt from maximum density requirements.

If a proposal for a replat or land division is not able to meet the minimum density requirement—due to the dimensional requirements for lot width, lot depth, or lot frontage—the minimum density requirement shall instead be equal to the maximum number of lots that can be obtained from the site given its dimensional constraints. The inability of new lot

lines to meet required yard dimensions from existing structures shall not be considered as a basis for automatically lowering the minimum density requirement.

~~2. Multifamily development in the R-2, R-1, and R-1-B Zones is subject to the minimum site size requirements in Table 19.302.5.F.2. In the event that the minimum site size requirements conflict with the development densities in Subsection 19.302.4.C.1, the site size requirements in Table 19.302.F.2 shall prevail.~~

~~**Table 19.302.5.F.2**~~

~~**Minimum Site Size for Multifamily Development in the R-2, R-1, and R-1-B Zones**~~

~~**Units**~~	~~**R-2 Zone**~~	~~**R-1 and R-1-B Zone**~~
~~First Dwelling Unit~~	~~5,000 sq ft per unit~~	~~5,000 sq ft per unit~~
~~Additional Dwelling Units~~	~~1,500 sq ft per unit~~	~~1,400 sq ft per unit~~

19.303 COMMERCIAL MIXED-USE ZONES

Table 19.303.2

Uses Allowed in Commercial Mixed-Use Zones

Uses and Use Categories	GMU	NMU	Standards/Additional Provisions
Residential			
Single-family detached	N	CU	**Subsection 19.505.1** Single Family Dwellings **Section** 19.905 Conditional Uses
Rowhouse[1]	P	CU	**Subsection 19.505.5** Rowhouses
~~Multifamily~~ Multi-unit Housing	P	CU	**Subsection 19.505.3** ~~Multifamily~~ Multi-unit Housing
Cottage cluster housing	P	CU	**Subsection 19.505.4** Cottage Cluster Housing
Mixed use[2]	P	P	
Live/work units	P	P	**Subsection 19.505.6** Live/Work Units
~~Senior and *retirement* housing~~	~~P~~	~~CU~~	~~**Subsection 19.505.3** Multifamily~~ Multi-unit ~~Housing~~

Table 19.303.2 CONTINUED

Uses Allowed in Commercial Mixed-Use Zones

Uses and Use Categories	GMU	NMU	Standards/Additional Provisions
Commercial[3, 4] **CONTINUED**			
~~General office~~ ~~General office means professional, executive, management, or administrative offices of firms or organizations.~~ ~~Examples include professional services such as lawyers, architects, or accountants; financial businesses such as lenders, credit unions, or real estate agents; sales offices; offices for testing and research-related businesses (including marijuana testing and research), and medical and dental clinics.~~ <u>Production-related office</u> <u>Professional and administrative office</u>	P	P	**Subsection 19.303.6.C** Marijuana testing and research facilities
Commercial lodging. Commercial lodging includes for-profit residential facilities where tenancy is typically less than one month. Examples include hotels, motels, vacation rentals, and bed-and-breakfast establishments. ~~Does not include senior and retirement housing.~~	P	P	

19.304 DOWNTOWN ZONES

Table 19.304.2 Uses Allowed in Downtown Zones			
Uses and Use Categories	DMU	OS	Standards/ Additional Provisions
Residential			
~~Boarding house~~	~~CU~~	~~N~~	~~**Section** 19.905 Conditional Uses~~
Micro-unit housing	P	N	**Subsection 19.505.3** Multi-unit Housing
Rowhouse	P	N	**Subsection 19.304.3.A.1** Downtown residential use limitations **Subsection 19.505.5** Rowhouses
~~Multifamily~~ Multi-unit Housing	P	N	**Figure 19.304-2** Ground-Floor Residential Permitted **Subsection 19.304.3.A.1** Downtown residential use limitations **Subsection 19.505.3** ~~Multifamily~~ Multi-unit Housing
Live/work units	P	N	**Subsection 19.304.3.A.1** Downtown residential use limitations **Subsection 19.505.6** Live/Work Units
Second-story housing	P	N	**Section** 19.508 Downtown Site and Building Design Standards
~~Senior and retirement housing~~	~~P~~	~~N~~	~~**Subsection 19.304.3.A.1** Downtown residential use limitations~~ ~~**Subsection 19.505.3** Multifamily~~ Multi-unit ~~Housing~~

Table 19.304.2 CONTINUED **Uses Allowed in Downtown Zones**			
Uses and Use Categories	DMU	OS	Standards/ Additional Provisions
Commercial			
Commercial lodging Commercial lodging includes for-profit residential facilities where tenancy is typically less than 1 month. Examples include hotels, motels, vacation rentals, and bed-and-breakfast establishments. ~~Does not include senior and retirement housing.~~	P/CU	N	**Section 19.905** Conditional Uses (for vacation rentals only)
Production-related office ~~Production-related office uses are characterized by activities that, while conducted in an office-like setting, involve less face-to-face customer contact and do not tend to generate foot traffic. Their operations are less service-oriented than traditional office uses and focus on the development, testing, research, production, processing, packaging, or assembly of goods and products.~~ ~~Examples include: software and internet content development and publishing; telecommunication service providers; data processing; television, video, radio, and internet studios and broadcasting; scientific and technical services; call centers, marijuana testing and research facilities, and medical and dental labs.~~	P/CU	N	**Subsection 19.304.3.A.2** Main St limitations **Subsection 19.304.3.A.3** Commercial use limitations **Subsection 19.509.2** Security and odor control for certain marijuana business **Section 19.905** Conditional Uses Note: Production, processing, packaging, and assembly uses must meet the standards listed below under Manufacturing.
~~Traditional office~~ ~~Traditional office uses are characterized by activities that~~	~~P/CU~~	~~N~~	~~**Subsection 19.304.3.A.3** Commercial use limitations~~

~~generally focus on business, government, professional, medical, or financial services. These office uses generally involve a high level of face-to-face customer contact and are typically expected to generate foot traffic.~~ ~~Examples include: professional services such as lawyers, architects, or accountants; financial businesses such as lenders, brokerage houses, bank headquarters, or real estate agents; sales offices; government offices and public utility offices; and medical and dental clinics.~~			~~**Section 19.905** Conditional Uses~~
Professional and Administrative Office	P/CU	N	**Subsection 19.304.3.A.3** Commercial use limitations **Section 19.905** Conditional Uses

19.304.5 Detailed Development Standards

J. Residential Density

1. Intent

There is a minimal amount of land available for new housing development within the downtown zones. Minimum densities are applied to residential development in the DMU Zone to assure efficient use of land at densities that support transit use and nearby downtown businesses.

2. Standards

a. Minimum densities for rowhouses and live/work units shall be 10 units per acre.

b. Minimum densities for stand-alone multifamily dwellings ~~and senior/*retirement* housing~~ in the DMU Zone shall be 30 units per acre. Maximum residential densities are controlled by height limits.

19.306 LIMITED COMMERCIAL ZONE C-L

19.306.2 Conditional Uses and Community Service Uses Permitted

In a C-L Zone the following conditional uses and their accessory uses are permitted subject to the provisions of Section 19.905:

A. Funeral home;

B. Marina and boat sales;

C. Parking facility;

D. Repair, maintenance, or service of the type of goods to be found in any permitted retail trade establishment;

E. Financial institution;

F. Trade or commercial school;

G. Single-~~family~~ unit detached dwelling;

H. Agricultural or horticultural use, provided that poultry or livestock other than usual household pets are not housed or kept within 100 ft of any dwelling not on the same lot, nor on a lot less than 1 acre, nor having less than 10,000 sq ft per head of livestock. Marijuana production is not permitted as an agricultural use;

I. ~~Duplex or multifamily development~~ Middle housing or multi-unit housing;

J. Adult foster/care home ~~Senior and retirement housing;~~

~~K. Residential home;~~

~~L. Congregate housing facility;~~

In a C-L Zone the following community service uses and their accessory uses are permitted subject to the provisions of Section 19.904:

A. Residential care facility

19.307 GENERAL COMMERCIAL ZONE C-G

In a C-G Zone the following regulations shall apply:

19.307.1 Uses Permitted Outright

In a C-G Zone the following uses and their accessory uses are permitted outright:

A. Production-related office; ~~Offices, studios, or clinics of accountants, architects, artists, attorneys, authors, writers, dentists, designers, engineers, investment counselors, landscape architects, management consultants, physicians, surgeons, psychologists, and others of a professional nature;~~

B. Professional and administrative office; ~~Offices for administrative, editorial, educational, executive, financial, governmental, philanthropic, insurance, real estate, religious, research, testing, scientific or statistical businesses or organizations;~~

19.312 NORTH MILWAUKIE INNOVATION AREA

Table 19.312.2

Uses Allowed in the North Milwaukie Innovation Area

Uses and Use Categories	NME	MUTSA	Standards/Additional Provisions
Commercial			
Office 1. Production-related office ~~uses are characterized by activities that, while conducted in an office-like setting, involve less face-to-face customer contact and do not tend to generate foot traffic. Their operations are less service-oriented than traditional office uses and focus on the development, testing, research, production, processing, packaging, or assembly of goods and products.~~ ~~Examples include: corporate headquarters, architects, engineers, financial services or accounting firm headquarters, call offices/call centers; software and internet~~	P	P	

Table 19.312.2 CONTINUED Uses Allowed in the North Milwaukie Innovation Area			
Uses and Use Categories	**NME**	**MUTSA**	**Standards/Additional Provisions**
~~content development and publishing; telecommunication service providers; data processing; television, video, radio, and internet studios and broadcasting; scientific and technical services; government and utility research offices; call centers, marijuana testing and research facilities, and medical and dental labs or research/bioscience facility.~~ 2. Professional and Administrative Office ~~2. Service-related office~~ ~~Traditional service-related office uses are characterized by activities that generally focus on direct in-person, customer-focused services including government, professional, medical, or financial services. These office uses generally involve a high level of face-to-face customer contact and are typically expected to generate foot traffic.~~ ~~Examples include: professional services such as lawyers; financial businesses such as lenders, retail brokerage houses, bank branches, or real estate agents; sales offices; government offices and public utility offices; counseling offices; and medical and dental clinics.~~	L	L	**Subsection 19.312.4.A** Standards for Limited Uses

CHAPTER 19.500 SUPPLEMENTARY DEVELOPMENT REGULATIONS

19.505 BUILDING DESIGN STANDARDS

19.505.3 Multi-unit Housing

B. Applicability

The design elements in Table 19.505.3.D in this subsection apply, as described below, to all multi-unit developments and residential care facilities ~~congregate housing developments~~ with 3 or more dwelling units on a single lot. Cottage cluster housing and rowhouses on their own lots are subject to separate standards and are therefore exempt from Subsection 19.505.3.

1. All new multi-unit or residential care facilities ~~congregate housing development~~ is subject to the design elements in this subsection.

C. Review Process

Two possible review processes are available for review of ~~multifamily~~ multi-unit or residential care facilities ~~congregate housing development~~: objective and discretionary. An applicant may choose which process to use. The objective process uses clear objective standards that do not require the use of discretionary decision-making. The discretionary process uses design guidelines that are more discretionary in nature and are intended to provide the applicant with more design flexibility. Regardless of the review process, the applicant must demonstrate how the applicable standards or guidelines are being met.

D. Design Guidelines and Standards

Applicable guidelines and standards for ~~multifamily~~ multi-unit and residential care facilities ~~*congregate* housing~~ are located in Table 19.505.3.D. These standards should not be interpreted as requiring a specific architectural style.

CHAPTER 19.600 OFF-STREET PARKING

19.605 VEHICLE PARKING QUANTITY REQUIREMENTS

Table 19.605.1
Minimum To Maximum Off-Street Parking Requirements

Use	Minimum Required	Maximum Allowed
A. Residential Uses		
1. Single detached dwellings, including manufactured homes.	1 space per dwelling unit.	No maximum.
2. Multi-Unit Dwellings	1 space per dwelling unit.	2 spaces per dwelling unit.

3. Middle Housing[1] a. Duplexes b. Triplexes c. Quadplexes d. Townhouses[2] e. Cottage Clusters	 0 0 0 0 0.5 spaces per dwelling unit	 1 space per dwelling unit 1 space per dwelling unit 1 space per dwelling unit 1 space per dwelling unit 1 space per dwelling unit
4. ~~Residential homes~~ Adult foster/care homes and similar facilities allowed by right in residential zones.	1 space per dwelling unit plus 1 space per employee on the largest shift.	Minimum required parking plus 1 space per bedroom.
B. Community Service and Other Public Uses		
7. Residential care facilities ~~*Nursing*, convalescent, and extended-care facilities~~.	1 space per 4 beds.	1 space per 3 beds.

CHAPTER 19.900 LAND USE APPLICATIONS

19.904 COMMUNITY SERVICE USES

A. Institutions—Public/Private and Other Public Facilities

1. Schools, public or private, and their accompanying sports facilities, day-care centers, private kindergartens;

2. Government office buildings for local, state, or federal government such as a City hall, courthouse, police station, or other similar buildings;

3. Hospital;

4. Cemetery;

5. ~~*Nursing* or convalescent home~~ Residential care facility;

19.904.8 Specific Standards for Residential care facilities ~~*Nursing* or Convalescent Homes~~

A. Public services must be adequate to serve the facility.

B. Facilities will access on arterial or collector streets.

C. Setbacks must be the greater of 25 ft or the setback of an adjacent residential zone or of the underlying zone.

D. Maximum height shall not exceed 45 ft.

E. Buffering of noise and light from adjacent streets and between adjacent properties may be required.

F. Sites which could cause hazard to disoriented patients through proximity to heavily traveled streets, water hazards, or ravines or steep slopes shall not be approved unless the applicant can satisfy the commission that safety measures will be used to prevent injury to patients.

19.905 CONDITIONAL USES

19.905.9 Standards Governing Conditional Uses

~~G. Senior and *Retirement* Housing~~

~~In considering a conditional use application for senior and *retirement* housing, the Planning Commission shall consider the following:~~

~~1. Pedestrian access to transit.~~

~~2. Pedestrian access to convenience facilities such as grocery store, pharmacy, laundromat, park and open space, and senior activity center.~~

~~3. Pedestrian access to banking, churches, hospitals, and restaurants.~~

~~4. Quality of project as a living environment for residents.~~

~~5. Minimizing impact on the surrounding area.~~

~~An applicant shall submit materials and the Planning Commission shall attach conditions that will ensure that the special nature of the housing, and the groups to be served, are clearly defined and maintained in perpetuity. A project is required to meet the definition for this type of housing in Section 19.201.~~