AGENDA

MILWAUKIE PLANNING COMMISSION
Tuesday, October 13, 2015, 6:30 PM

MILWAUKIE CITY HALL
10722 SE MAIN STREET

1.0 Call to Order - Procedural Matters

2.0 Planning Commission Minutes – Motion Needed

~~2.1 March 24, 2015~~

3.0 Information Items

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

5.0 Public Hearings – Public hearings will follow the procedure listed on reverse

5.1 Summary: Riverway Ln Pool/Slope Project
Applicant/Owner: Gary Klein
Address: 10795 SE Riverway Ln
File: NR-2015-003
Staff: Brett Kelver

5.2 Summary: Moving Forward Milwaukie Neighborhood Main Streets Code Amendments #1
Applicant: City of Milwaukie
File: ZA-2015-002
Staff: Li Alligood

6.0 Worksession Items

6.1 Summary: Short Term Rentals
Staff: Denny Egner

7.0 Planning Department Other Business/Updates

8.0 Planning Commission Discussion Items – This is an opportunity for comment or discussion for items not on the agenda.

9.0 Forecast for Future Meetings:

October 27, 2015	1. Public Hearing: S-2015-001, VR-2015-003 King Rd Subdivision 2. Public Hearing: ZA-2015-002 Neighborhood Main Streets Code Amendments #2
November 10, 2015	1. Worksession: Ethics Training *tentative*

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 speak at this meeting, please fill out a yellow card and give to planning staff. Please turn off all personal communication devices during meeting. For background information on agenda items, call the Planning Department at 503-786-7600 or email planning@ci.milwaukie.or.us. Thank You.

2. **PLANNING COMMISSION MINUTES.** Approved PC Minutes can be found on the City website at www.cityofmilwaukie.org

3. **CITY COUNCIL MINUTES** City Council Minutes can be found on the City website at www.cityofmilwaukie.org

4. **FORECAST FOR FUTURE MEETING.** These items are tentatively scheduled, but may be rescheduled prior to the meeting date. Please contact staff with any questions you may have.

5. **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 the agenda item to a future date or finish the agenda item.

Public Hearing Procedure

Those who wish to testify should come to the front podium, state his or her name and address for the record, and remain at the podium until the Chairperson has asked if there are any questions from the Commissioners.

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 IN SUPPORT.** Testimony from those in favor of the application.

5. **NEUTRAL PUBLIC TESTIMONY.** Comments or questions from interested persons who are neither in favor of nor opposed to the application.

6. **PUBLIC TESTIMONY IN OPPOSITION.** Testimony from those in opposition to the application.

7. **QUESTIONS FROM COMMISSIONERS.** The commission will have the opportunity to ask for clarification from staff, the applicant, or those who have already testified.

8. **REBUTTAL TESTIMONY FROM APPLICANT.** After all public testimony, the commission will take rebuttal testimony from the applicant.

9. **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.

10. **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.

11. **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.

The City of Milwaukie will make reasonable accommodation for people with disabilities. Please notify us no less than five (5) business days prior to the meeting.

Milwaukie Planning Commission:

Sine Bone, Chair
Shaun Lowcock, Vice Chair
Shane Abma
Shannah Anderson
Adam Argo
Scott Barbur
Greg Hemer

Planning Department Staff:

Denny Egner, Planning Director
Li Alligood, Senior Planner
Brett Kelver, Associate Planner
Vera Kolias, Associate Planner
Alicia Martin, Administrative Specialist II

MILWAUKIE
Dogwood City of the West

To: **Planning Commission**

Through: **Dennis Egner, Planning Director**

From: **Brett Kelver, Associate Planner**

Date: **October 6, 2015, for October 13, 2015, Public Hearing**

Subject: **Files:** NR-2015-003, WG-2015-004
Applicant/Owner: Gary and Sharon Klein
Address: 10795 SE Riverway Lane
Legal Description (Map & Tax lot): 1S1E35AA04400
NDA: Historic Milwaukie

ACTION REQUESTED

Approve applications NR-2015-003 and WG-2015-004 and adopt the recommended Findings and Conditions of Approval found in Attachments 1 and 2. This action would allow for stabilization of a steep slope on the subject property, including removal and replacement of an existing in-ground swimming pool and patio and restorative plantings of native trees, shrubs, and groundcover as mitigation.

BACKGROUND INFORMATION

The applicants, Gary and Sharon Klein, have applied for approval to stabilize a steep slope within a designated natural resource area on their residential property. The project involves removing and replacing an existing in-ground swimming pool and patio at the top of the slope; re-grading the steepest portion of the slope; and replanting the disturbed area with native species trees, shrubs, and groundcover.

The subject property is adjacent to the confluence of Johnson Creek with the Willamette River, with access provided through SE Riverway Lane, a private dead-end road extending south from SE Lava Drive. The site is developed with a single-family dwelling, includes designated natural resource areas in the form of Water Quality Resource (WQR) and Habitat Conservation Area (HCA), and is entirely covered by the Willamette Greenway zoning overlay.

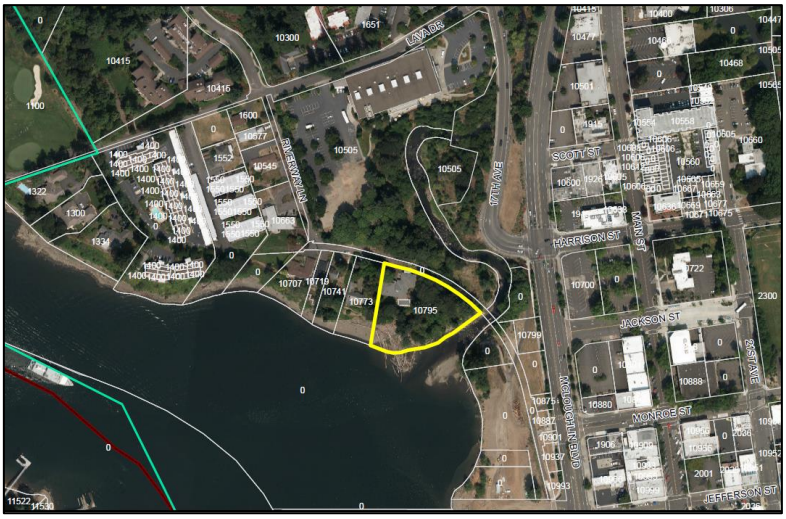
The proposed activity will be conducted in accordance with plans that require Natural Resource review as per MMC Section 19.402. The alteration of natural site characteristics (in the form of

substantial grading on the existing steep slope) constitutes “development” in the context of the Willamette Greenway overlay on the site, requiring conditional use review as per MMC Section 19.401.

A. Site and Vicinity

The site is located at 10795 SE Riverway Ln (see Figure 1). The property is comprised of a single tax lot and is developed for single-family residential use. The total site area is approximately 56,600 sq ft (approximately 1.3 acres). A single-family house built in 1948 is located on the northwestern portion of the site, above a steep slope that drops into a vegetated buffer area in the floodplain next to the confluence of creek and river.

Figure 1. Site and vicinity



The surrounding area consists of other lots with single-family detached dwellings to the west, with the riparian portion of a large office property (Moda Health) to the north. To the south and east are Johnson Creek and the City’s Riverfront Park (on the south side of the creek from the subject property). The Willamette River is adjacent to the south and west.

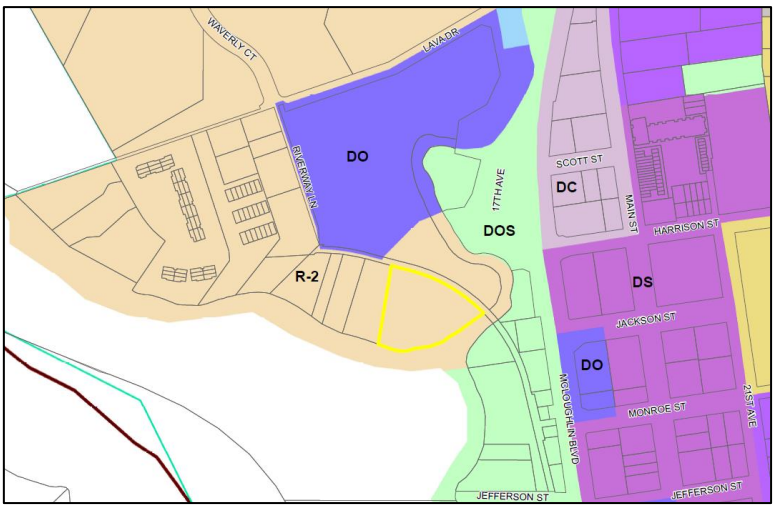
B. Zoning Designations

The site is zoned Residential R-2 (see Figure 2), with Water Quality Resource (WQR) and Habitat Conservation Area (HCA) designations for natural resources (see Figure 3) and the Willamette Greenway overlay covering the entire site.

C. Comprehensive Plan Designation

High Density

Figure 2. Zoning designations



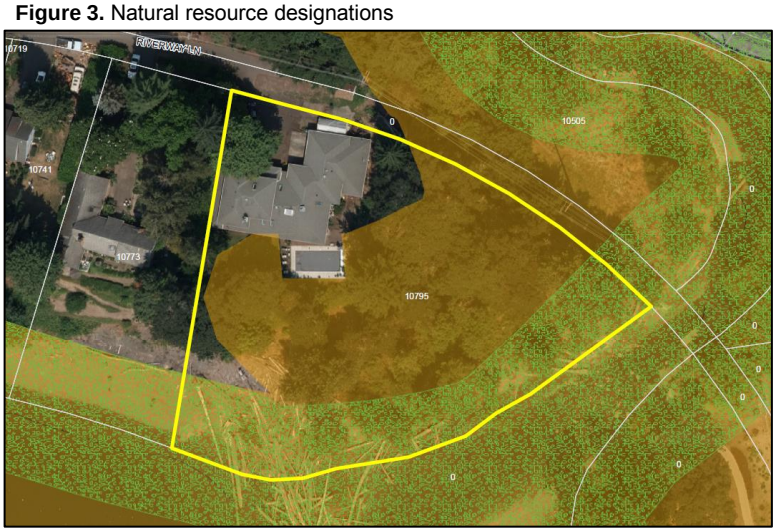
D. Land Use History

- **1988-89:** At the time, the subject property included two pieces separated by Johnson Creek and was split-zoned. The main portion of the property north of the creek was zoned Residential R-2 and the smaller piece south of the creek was zoned Limited Commercial (C-L). The property was one of several sites under consideration for zone changes as part of the Periodic Review process (land use file #s CPA-88-02, ZA-88-03, ZC-88-05). The C-L designation was retained for the southern portion of the site.

- **2001:** Willamette Greenway and Natural Resource review for proposed additions to existing house (file #s NR-01-03 and WG-01-01). The request was approved.
- **2008:** The southern portion of the site was re-zoned from Limited Commercial (C-L) to Downtown Open Space and incorporated into Riverfront Park as Klein Point (file #s CPA-08-01, ZC-08-01, HR-08-01).

E. Proposal

Figure 3. Natural resource designations



The applicant is seeking land use approval for temporary disturbance of designated natural resource areas and conditional use approval related to the Willamette Greenway overlay.

The proposed activity involves removing an existing in-ground swimming pool and patio; re-grading and stabilizing the adjacent steep slope; replacing the pool and patio; and planting native species trees, shrubs, and groundcover to restore the project area.

The project requires approval of the following applications:

1. Natural Resource review (file #NR-2015-003)
2. Willamette Greenway review (file #WG-2015-004)

The Applicant's Narrative and Supporting Documentation includes more information and detail about the proposed activity (see Attachment 3). Note: The scale was incorrect on a few of the figures included with the applicant's submittal, and revised figures with corrected scales have been provided.

KEY ISSUES

Summary

Staff has identified the following key issue 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. Will disturbance to the WQR and HCA be adequately mitigated?

Analysis

A. Will disturbance to the WQR and HCA be adequately mitigated?

The proposed activity is intended to prevent the steep slope on the subject property from further eroding into the riparian area below. In consultation with qualified engineers, the applicant has determined that removing the existing in-ground swimming pool and brick

patio on top of the slope, as well as removing two or three large trees, will allow the eroding hillside to be re-graded and therefore greatly reduce the likelihood of a larger slope failure.

Once the slope is re-graded, the hillside will be replanted with native species of trees, shrubs, and groundcover. The applicant has proposed to use the ratio provided in the City's natural resource regulations for disturbance to HCA areas—5 trees and 25 shrubs for every 500 sq ft of disturbance. Invasive plants within the project area will be removed and the informal access road used for equipment and material staging will be reseeded.

The mitigation planting list includes a variety of species that are well suited to the various conditions within the project area, which varies in elevation and moisture in relation to the ordinary high water mark and floodplain. Although the work will initially result in a loss of some existing canopy and vegetative cover, the mitigation plantings should provide as much if not more vegetation once established and will improve the overall ecological health of the natural resource area. By removing invasive plants, replanting the site with native vegetation, retaining downed trees within the natural resource area, and preventing further erosion of sediment from the slope into the riparian corridor, the proposed activity can be viewed as a major restoration effort on the property.

CONCLUSIONS

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

1. Approve the proposed disturbance of designated natural resource areas (WQR and HCA) on the subject property. This will result in stabilization of the existing steep slope; removal and replacement of the existing in-ground swimming pool and patio; and mitigation plantings of native species trees, shrubs, and groundcover.
2. Approve the Willamette Greenway review.
3. Adopt the attached Findings and Conditions of Approval.

A. Staff recommends the following key conditions of approval (see Attachment 2):

- Provide revised versions of key site plans, adjusting the representations of the location of Water Quality Resource (WQR), Habitat Conservation Area (HCA), and Willamette Greenway vegetation buffer.
- Provide an adjusted figure for WQR and HCA disturbance and a recalculation of mitigation plantings, at the ratio of 5 trees and 25 shrubs per 500 sq ft of disturbance.
- Provide a planting site plan showing the general locations and/or distributions of the various species, to ensure that species are located appropriately for the site conditions based on their various characteristics. The plan shall demonstrate that, to the greatest extent practicable, trees removed from the project area will be left within the WQR and/or HCA, to preserve the riparian habitat functions the downed trees would serve if left to fall naturally over time.

CODE AUTHORITY AND DECISION-MAKING PROCESS

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

- MMC Section 19.1006 Type III Review
- MMC Section 19.402 Natural Resources
- MMC Chapter 19.401 Willamette Greenway Zone WG
- MMC Section 19.905 Conditional Uses
- MMC Section 19.302 Medium and High Density Residential Zones (incl. R-2)

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 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 this application, which includes any appeals to the City Council, must be made by December 23, 2015, 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 major modification to the existing CSU was given to the following agencies and persons: City of Milwaukie Building Department, City of Milwaukie Engineering Department, City of Milwaukie Operations Department (Stormwater Division), ESA Vigil-Agrimis (City's on-call consultant for natural resources), Clackamas Fire District #1, Historic Milwaukie Neighborhood District Association (NDA), Oregon Parks and Recreation Department, Oregon Department of State Lands, Oregon Department of Fish and Wildlife, Oregon State Marine Board, and Oregon Department of Transportation.

The following comments were received by the City:

- **Chrissy Dawson, Civil Engineer, Milwaukie Engineering Department:** No comments on the proposal.
- **Rob Livingston, Environmental Services Coordinator, Milwaukie Public Works Department:** Restorative planting areas shall use compost mulch for ground cover in addition to the planned plants. The access road shall be restored with straw mulch or compost mulch in addition to the planned seeding. All EC [erosion control] measures must be properly installed prior to starting work at site.

  Staff Response: *These comments have been included as advisory notes in the Recommended Conditions of Approval (see Attachment 2).*

- **John Vlastelicia, Senior Environmental Scientist, ESA Vigil-Agrimis:** [See Memo dated October 1, 2015, for Natural Resource Review for Pool Replacement and Bank Stabilization.]

  Staff Response: *Information from the ESA memo (peer review of applicant's technical memo) has been incorporated into the recommended findings and conditions of approval. The entire memo is included for reference in Attachment 4.*

ATTACHMENTS

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

		Early PC Mailing	PC Packet	Public Copies	E-Packet
1.	Recommended Findings in Support of Approval	☐	☒	☒	☒
2.	Recommended Conditions of Approval	☐	☒	☒	☒
3.	Applicant's Narrative and Supporting Documentation dated August 17, 2015				
	a. Application Narrative	☒	☐	☒	☒
	b. Impact Evaluation and Alternatives Analysis Memo	☒	☐	☒	☒
	1) Preliminary HCA Impacts, revised (Figure 4)	☐	☒	☒	☒
	2) WQR Impacts, revised (Figure 5)	☐	☒	☒	☒
	c. Mitigation Plan and Planting Plan	☒	☐	☒	☒
	1) Willamette Greenway Vegetation Buffer Impacts, revised (Figure 1)	☐	☒	☒	☒
	d. Construction Management Plan	☒	☐	☒	☒
	e. Erosion Control Plan	☒	☐	☒	☒
4.	Memo from ESA Vigil-Agrimis (Natural Resource Review for Pool Replacement and Bank Stabilization—dated October 1, 2015)	☐	☒	☒	☒

Key:

Early PC Mailing = paper materials provided to Planning Commission at the time of public notice 20 days prior to the hearing.

PC Packet = paper materials provided to Planning Commission 7 days prior to the hearing.

Public Copies = paper copies of the packet available for review at City facilities and at the Planning Commission meeting.

E-Packet = packet materials available online at http://www.milwaukieoregon.gov/planning/planning-commission-135.

Recommended Findings in Support of Approval
File #s NR-2015-003 and WG-2015-004
Klein Slope Stabilization & Pool Replacement

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, Gary and Sharon Klein, have applied for approval to stabilize a steep slope on their property and remove and replace an existing swimming pool and patio. The site is a single tax lot located at 10795 SE Riverway Lane and is zoned Residential R-2, with Natural Resource and Willamette Greenway overlays. The proposed activity triggers land use review against the applicable standards of the Natural Resource and Willamette Greenway sections of the zoning code. The land use application master file number is NR-2015-003, with associated file number WG-2015-004.

2. The proposed activity is focused on a steep slope on the subject property, between the existing house and the confluence of Johnson Creek with the Willamette River. The project involves stabilizing the slope, which is gradually sloughing toward the river. The project will remove two or three large trees near the top of the slope, as well as remove the existing in-ground swimming pool and brick patio and replace them with a smaller pool and deck set farther back from the edge of the slope.

3. The proposal is subject to the following provisions of the Milwaukie Municipal Code (MMC):
   - MMC Section 19.1006 Type III Review
   - MMC Section 19.402 Natural Resources NR
   - MMC Section 19.401 Willamette Greenway Zone WG
   - MMC Section 19.905 Conditional Uses
   - MMC Section 19.301 Medium and High Density Residential Zones (incl. R-2)

   The proposed activity does not result in the expansion of any existing structures. The municipal code relies on an increase in building square footage to calculate vehicle trip generation to and from the site. The Engineering Department has determined that MMC Chapter 19.700 Public Facility Improvements does not apply to this application.

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 by the Planning Commission on October 13, 2015, as required by law.

5. MMC Section 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.

   a. 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 site is adjacent to Johnson Creek at its confluence with the Willamette River, both of which are protected water features. As per MMC Table 19.402.15, primary

protected water features, along with their associated vegetated corridors, constitute a WQR on the site. The City's NR Administrative Map also shows the HCA designation over a large portion of the site between the existing house and the creek and river below.

Finding 5-f addresses discrepancies between the applicant's submittal materials and the guidelines provided in MMC Subsection 19.402.15 for determining the exact locations of WQR and HCA areas on a site. Some corrections to the various site plans are necessary to more accurately show the WQR and HCA locations, and a condition has been established to ensure that the actual amount of disturbance to each can be more accurately calculated. In general, larger areas of WQR and HCA are affected by the project than is demonstrated in the applicant's submittal materials.

As presented in the applicant's submittal materials, the proposed activity will disturb approximately 2,800 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, even without the needed corrections to the applicant's calculation of actual WQR and HCA disturbance area.

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

b. MMC Subsection 19.402.6 Activities Requiring Type I Review

MMC 19.402.6 establishes that certain activities within a designated WQR and/or HCA are subject to Type I review in accordance with MMC 19.1004. As per MMC 19.402.6.H, this includes boundary verification for minor corrections to the NR Administrative Map that are in accordance with MMC 19.402.15.A.1.

As discussed in Finding 5-f, the applicant's submittal materials indicate some simple incongruities between the NR Administrative Map's designation of HCA areas on the site and existing developed areas. This level of boundary verification is subject to Type I review as per MMC 19.402.15.A.1.

However, as discussed in Findings 5-c and 7-a, the proposed activity requires other applications (i.e., Natural Resource review, Willamette Greenway review) that are being processed concurrently with Type III review. As provided in MMC 19.1001.6.B.1, concurrent applications shall be processed according to the highest numbered review type, with a single decision to be issued that includes findings for all concurrent applications.

The Planning Commission finds that the boundary verification for minor corrections to the NR Administrative Map shall be processed concurrently with Type III review.

c. 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 proposed activity is associated with the existing residential use and is allowed outright in the underlying Residential R-2 zone. The level of disturbance proposed within the 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 must be reviewed using Type III review and the discretionary process established in MMC 19.402.12.

The Planning Commission finds that the proposed activity shall be processed with Type III review.

d. 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 submittal materials include a construction management plan that shows the locations of proposed erosion control measures, access to the work area for machinery and people, and a staging area for equipment and materials. High-visibility fencing and sediment fence will be utilized to protect nearby trees from damage.

The Planning Commission finds that the applicant's construction management plan is sufficient to satisfy the requirements of MMC 19.402.9.

e. 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.

(1) Impact Evaluation and Analysis

MMC 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:

- Identification of ecological functions
- Inventory of vegetation
- Assessment of water quality impacts
- Alternatives analysis
- 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
- Mitigation plan

The applicant's submittal materials include a technical report prepared by Otak, a multidisciplinary design firm with staff experience and expertise in geological sciences, environmental studies, environmental engineering, civil engineering, natural system design, hydraulics engineering, floodplain management, and geotechnical engineering. The technical report includes an impact evaluation and alternatives analysis consistent with the required components listed above.

In summary, the technical report notes that the ecological function of the WQR and HCA areas within the project area is compromised by the extremely steep slope, which supports very little native vegetation, provides little flow attenuation and water storage, and is at risk of eroding and contributing additional sediment to the nearby creek and river. Three large, existing native trees at the top of the slope provide a shade canopy but are leaning downslope, with a limited shrub

layer in the understory and a high percentage of coverage by invasive plants, namely English ivy.

The proposed activity involves removing the pool, patio, and two to three trees; re-grading a limited portion of the hillside to reduce the angle of the slope; and replanting the project area with native plants. The report presents an analysis of four alternatives to the proposed activity: 1) leave existing conditions as they are, 2) retain the existing pool and stabilize the slope with a micropile structural wall, 3) retain the existing pool and stabilize the slope with a rock buttress, and 4) remove the existing pool and re-grade a much larger portion of the slope.

The technical report demonstrates that the proposed activity is the least impactful option that also reduces the likelihood of further slope erosion. The first alternative does nothing to address the current condition of slope instability and erosion into the natural resource area. The other three alternatives would all disturb significantly more of the natural resource area to achieve slope stability. The micropile wall option would leave in place the existing pool, which is a structure of some concern for long-term slope stability. The rock buttress option would leave the existing pool in place and result in a non-vegetated slope. And the larger-area re-grading option would disturb a far larger amount of natural resource area than the proposed activity, which is focused on a more limited area where the slope is very steep.

The technical report includes a mitigation plan that calls for replanting disturbed areas with native species plants, with trees and shrubs planted in the ratios listed in MMC Subsection 19.402.11.D.2.b. The native species of trees, shrubs, and groundcover planted will improve the quality of vegetated cover within the WQR and HCA. The mitigation plan includes an implementation schedule and plan for maintenance and monitoring to ensure successful planting survival.

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.

(2) Approval Criteria

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

a) *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.*

b) *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.*

c) *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.*

ESA Vigil-Agrimis (ESA), the City's on-call consultant for natural resource services, reviewed the applicant's technical report. ESA presented its assessment to the City in a summary memo, which informs this portion of the findings.

The proposed activity would minimize disturbance impacts to the WQR and HCA on the site to the extent practicable while still achieving the goal of stabilizing the slope. The project would affect only those portions of the slope and nearby areas within the WQR and HCA as necessary to re-grade the slope itself and provide access for equipment and materials. As discussed in Finding 5-e-(1), the other alternatives all would have greater impacts on the natural resource area than the proposed activity. Doing nothing would leave the slope vulnerable to further erosion, increasing the likelihood of additional sediment being deposited in the protected water features below. The other alternatives, which involve other engineering measures (i.e., micropile wall, rock buttress, and re-grading entire slope), would all result in a larger disturbance area than the proposed activity.

To minimize impacts to the WQR and HCA, the applicant's construction management plan shows the sediment fencing and high-visibility fencing that will be used to demarcate where disturbance is expected. An existing road overgrown with vegetation will provide access for materials and equipment. Staging and pedestrian access areas will be located within already-landscaped portions of the site, to avoid disturbance of existing native vegetation.

Mitigation for the proposed impacts to the WQR and HCA will take the form of native species plantings, with trees and shrubs provided in numbers consistent with the ratios listed in MMC Subsection 19.402.11.D.2.b (i.e., 5 trees and 25 shrubs for every 500 sq ft of disturbance within an HCA). In addition, the mitigation plan calls for groundcover plantings consisting of a mix of native grasses and herbs.

ESA has reviewed the mitigation plan and concurs that the applicant's approach is reasonable and adequate to account for the project's adverse impacts to the WQR and HCA. ESA has suggested that new plants be distributed on the site according to each species' preference for particular conditions. For example, the ESA assessment notes that some of the proposed species are better suited for the wetter conditions on the lower part of the slope near the ordinary high water mark than in the higher, drier areas. ESA also suggested that any downed trees should be left on the site within the natural resource area, in order to preserve the riparian habitat functions they would serve if left to fall naturally over time.

As addressed in Finding 5-f, the applicant's submittal materials somewhat under-represent the location of WQR and HCA areas on the subject property, which results in a larger area of WQR and HCA disturbance than originally indicated and a need for the applicant to revise the proposed amount of mitigation planting. A condition has been established to require that revised site plans be presented in conjunction with development permits to more accurately show the location of the WQR and HCA on site and to recalculate the amount of area being disturbed. The condition includes a requirement to provide a revised planting plan that adjusts the number of mitigation plantings using the same ratio of 5 trees and 25 shrubs per 500 sq ft of disturbance.

Furthermore, the applicant's mitigation plan does not include a planting site plan showing the proposed locations of new plants with respect to topography and ordinary high water mark. That level of detail is necessary for staff to verify that future plantings are located where they are more likely to survive and become established. A condition has been established to ensure that such a planting site plan is provided at the time of development permits. In addition, a condition has been established to ensure that, as proposed, any downed trees will be left on the site within the WQR and/or HCA, to the extent practicable.

As conditioned, the Planning Commission finds that the proposed activity meets the approval criteria for discretionary review.

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

f. MMC Subsection 19.402.15 Boundary Verification and Map Administration

MMC 19.402.15 establishes standards for verifying the boundaries of WQRs and HCAs and for administering the City's Natural Resource (NR) Administrative Map.

The locations of WQRs are determined based on the provisions of MMC Table 19.402.15. For streams, the WQR includes the feature itself and a vegetated corridor that extends 50 ft from the ordinary high water mark or 2-year recurrence interval flood elevation. Where the slope exceeds 25% for less than 150 ft, the vegetated corridor is measured with a 50-ft width from the break in the 25% slope.

MMC 19.402.15.A.1.a establishes the information required to justify corrections to mapped HCAs where there are simple incongruities, including a site plan with existing conditions, a copy of the applicable portion of the NR Administrative Map, the latest aerial photos of the property, and a demonstration of the misalignment between the NR Administrative Map and the property's tax lot boundaries.

The applicant's submittal includes a site plan that overlays the existing conditions with the HCA boundary from the NR Administrative Map, a recent aerial photo, and the tax lot boundaries. The site plan demonstrates that there is some discrepancy between the HCA boundary on the NR Administrative Map and the existing developed part of the subject property, namely a portion of the house, in-ground pool, and brick patio, as measured by topographic survey.

The applicant's materials and the NR Administrative Map show the WQR boundary extending simply 50 ft uphill from the ordinary high water mark, without accounting for the steep slope within the project area. The actual WQR boundary on the subject property appears to extend farther uphill than is shown on the applicant's materials and the NR Administrative Map, and likely overlaps more with the HCA boundary.

In addition, the applicant's materials indicate that a portion of the HCA shown on the NR Administrative Map includes existing developed and landscaped areas that should not be designated as HCA. However, as per the principles outlined in MMC Subsection 19.402.15.A.1.a, landscaped areas are not considered developed areas for purposes of determining HCA boundaries and are not eligible for consideration as simple incongruities. The applicant's calculations of HCA disturbance excluded these landscaped areas, which should still be considered HCA. As addressed in Finding 5-e, a condition has been established to provide revised plans that distinguish developed features from landscaped areas, to verify which areas should have the HCA designation removed from the NR Administrative Map.

The Planning Commission finds that the City's NR Administrative Map shall be corrected to remove the HCA designation from existing developed areas on the subject property, using the topographically surveyed conditions as the basis for accuracy. As conditioned, the Planning Commission finds that the standards of MMC 19.402.15 for boundary verification and map administration have been met.

As conditioned, the Planning Commission finds that the proposed activity, including disturbance and restoration of a portion of the designated natural resource area on the subject property, meets all applicable standards of MMC 19.402.

6. MMC Section 19.401 Willamette Greenway Zone

MMC 19.401 establishes standards for the Willamette Greenway overlay designation. The subject property is entirely within the Willamette Greenway zone as shown on the City's zoning map.

a. 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.

By virtue of regrading and stabilizing the slope adjacent to the creek and river, the project involves the substantial alteration of natural site characteristics and constitutes "development" as defined in MMC Subsection 19.401.4. The proposed activity is subject to the conditional use review standards of MMC 19.905 and the approval criteria of MMC 19.401.6.

b. MMC Subsection 19.401.6 Criteria

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

(1) 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."

The subject property has been developed for private residential use since at least 1948. The land is committed to an urban use.

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

The project area is adjacent to and overlooks the confluence of Johnson Creek with the Willamette River. The intent of the project is to prevent continued erosion of the existing steep slope into the natural resource area below. The proposed activity includes replanting vegetation in and around the disturbance area to enhance the natural resource area. The project presents no significant impacts to the character of the river and is compatible with it.

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

The project area is adjacent to the river and includes a range of elevations due to a steep slope on the site. The proposed activity includes removing two or three mature trees, which will temporarily open up views toward and away from

the river. Native trees and shrubs will be planted as mitigation, and the vegetated visual buffer between the site and the river will be reestablished over time. Over the long term, views toward and away from the river will not be significantly changed as a result of this project.

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

The project area includes an existing in-ground swimming pool and patio at the top of a vegetated slope leading down across the riparian fringe to the confluence of the creek and river. No new permanent disturbance is proposed between the existing pool and the riparian area, and additional native vegetation will be planted to restore disturbed areas and enhance the existing habitat.

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

The subject property is a private residential property and does not provide public access to the river. The river is publicly accessible nearby from the south side of Johnson Creek, at Klein Point in the City's Riverfront Park.

(6) Emphasis on water-oriented and recreational uses

The site is a residential property that provides private access to the creek and river, as well as to an in-ground swimming pool and patio on site. The proposed activity will not impact the water-oriented and recreational uses currently provided by the subject property.

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

The project area is approximately 300 ft (linear distance) from the nearest portion of downtown Milwaukie on the east side of SE McLoughlin Boulevard (Highway 99E). However, due to extensive vegetation, elevation differences, and the presence of Johnson Creek, the subject property is not very visible from downtown. The proposed activity will have no effect on views between the river and downtown.

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

The intent of the proposed activity is to protect the existing natural area on site, a significant portion of which includes WQR and HCA natural resource designations. As addressed in Finding 5, the proposed activity has been reviewed against the standards for natural resource protection as provided in MMC Section 19.402. The project includes mitigation for impacts to the designated natural resource areas on the subject property and will improve the overall ecological health of the natural environment.

(9) Advice and recommendations of the Design and Landmark Committee, as appropriate

The subject property is not within a downtown zone and the proposed activity does not require review by the Design and Landmarks Committee (DLC).

(10) 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 activity is being reviewed through the Willamette Greenway conditional use process as provided in MMC Subsection 19.401.5. The project will not significantly or permanently impact visual corridors. The proposed activity is on private property and does not involve increasing public access to the river over private land. The project area is outside the 100-year floodplain and is also being reviewed through the general discretionary review process for natural resource areas as provided in MMC Section 19.402.

(11) 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).

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

The proposed activity involves stabilization of a steep slope on the site, with accompanying plantings to mitigate for disturbance. The project area includes a Willamette Greenway vegetation buffer (land within 25 ft of the ordinary high water mark), primarily where a temporary road will provide access. The applicant's materials include a mitigation plan that proposes to restore the access road with native grasses and plant a vegetation buffer area adjacent to the location where the slope will be stabilized. No trees will be removed from within the Willamette Greenway vegetation buffer and scenic views will not be significantly affected over the long term. The proposed activity will enhance the vegetation buffer area.

The Planning Commission finds that 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 the Willamette Greenway zone.

7. MMC Section 19.905 Conditional Uses

MMC 19.905 establishes regulations for conditional uses, including standards for reviewing modifications to existing conditional uses. As noted in Finding 6-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, or a major or minor modification of an existing conditional use, must be reviewed.

As noted in Finding 6-a, the proposed development is an activity within the Willamette Greenway zone that requires review as a conditional use. The existing use on the subject property is a private residence, which is an allowed use in the underlying

residential R-2 zone. The proposed activity involves removing and replacing an existing swimming pool and patio, as well as excavating to stabilize and restore a steep slope on the site, which represents a major modification to the existing use.

MMC 19.905.3.A requires that a major modification of an existing 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 subject property is a residential lot approximately 56,600 sq ft in size. The property is developed with a single-family residence and accompanying landscaped areas, including an in-ground swimming pool and patio. The site is adjacent to the confluence of Johnson Creek and the Willamette River and includes WQR and HCA natural resource areas. The proposed activity is intended to reduce the occurrence of the existing slope slowly eroding into the natural resource areas.

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 subject property is adjacent to Johnson Creek and the Willamette River, with access from a private dead-end road. The project area is located behind the existing house, where it will be visible only from the creek, river, and the Klein Point portion of Riverfront Park to the south. The proposed activity involves removing and replacing an existing in-ground swimming pool and patio, as well as removing some existing vegetation and replacing it with new native plantings. The project's impacts on nearby uses will be minimal.

The Planning Commission finds that this standard is met.

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

The primary impact of the proposed activity will be the temporary disturbance of the designated natural resource areas (WQR and HCA) on the site. The project includes planting native species of trees, shrubs, and groundcover to mitigate the disturbance.

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 proposed activity will not result in any different use of the subject property than currently exists and will not generate any unmitigated nuisance impacts.

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 Residential R-2 zone, where the applicable development standards are those for lot coverage (maximum of 45% of lot area) and minimum vegetation (minimum of 15% of lot area). Currently, the 56,600-sq-ft lot is covered by approximately 5,600 sq ft of structural footprint (10% lot coverage) and another approximately 3,000 sq ft of non-vegetated area (85% minimum vegetation). The proposed activity will not expand the footprint of existing structures and will not increase the amount of non-vegetated area, leaving the site well over the minimum thresholds for compliance with both relevant standards.

As addressed in Findings 5 and 6, the proposed activity will comply with the relevant standards of the Natural Resource and Willamette Greenway overlay zones, respectively. As addressed elsewhere in Finding 7, the proposed activity is compliant with the other standards of MMC 19.905.

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.

As addressed in Finding 6-b-10, the proposed development is consistent with all relevant polices in the Comprehensive 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 Engineering Department has reviewed the proposal and confirmed that existing public transportation facilities and public utilities are adequate to serve the proposed development.

The Planning Commission finds that this standard is met.

The Planning Commission finds that the proposed development meets all of the approval criteria outlined in MMC 19.905.4.A for a major modification to an existing 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, as proposed, the new development sufficiently mitigates any negative impacts as proposed and that no additional conditions are necessary to ensure compatibility with nearby uses.

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.

An advisory note has been included with the conditions of approval to outline the conditional use permit process.

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

8. As per MMC Subsection 19.1001.7.E.1.a, proposals requiring any kind of development permit must complete both of the following steps:

   a. Obtain and pay for all necessary development permits and start construction within two (2) years of land use approval.

   b. Pass final inspection and/or obtain a certificate of occupancy within four (4) years of land use approval.

   As per MMC Subsection 19.1001.7.E.2.b, land use approvals shall expire unless both steps noted above have been completed or unless the review authority specifies a different expiration date in the land use decision to accommodate large, complex, or phased development projects.

9. The application was referred to the following departments and agencies on August 27, 2015:

   - Milwaukie Building Department
   - Milwaukie Engineering Department
   - Milwaukie Operations Department (Stormwater Division)
   - ESA Vigil-Agrimis (City's on-call consultant for natural resources)
   - Clackamas Fire District #1
   - Historic Milwaukie Neighborhood District Association (NDA) Chairperson and Land Use Committee (LUC)
   - Oregon Parks and Recreation Department
   - Oregon Department of State Lands (DSL)
   - Oregon Department of Fish and Wildlife
   - Oregon State Marine Board
   - Oregon Department of Transportation (ODOT)

   The comments received are summarized as follows:

   a. **Chrissy Dawson, Civil Engineer, Milwaukie Engineering Department:** No comments on the proposal.

   b. **Rob Livingston, Environmental Services Coordinator, Milwaukie Public Works Department:** Restorative planting areas shall use compost mulch for ground cover in addition to the planned plants. The access road shall be restored with straw mulch or compost mulch in addition to the planned seeding. All EC [erosion control] measures must be properly installed prior to starting work at site.

ATTACHMENT 2

Recommended Conditions of Approval
File #s NR-2015-003, WG-2015-004
Klein Slope Stabilization & Pool Replacement

Conditions

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

   a. Final plans submitted for development permit review shall be in substantial conformance with plans approved by this action, which are the plans stamped received by the City on August 17, 2015, except as otherwise modified by these conditions.

   b. Provide a narrative describing all actions taken to comply with these conditions of approval.

   c. Provide a narrative describing any changes made after the issuance of this land use decision that are not related to these conditions of approval.

   d. Provide revised versions of the following site plans, adjusting the representations of the location of Water Quality Resource (WQR), Habitat Conservation Area (HCA), and Willamette Greenway vegetation buffer in accordance with the provisions of MMC Subsections 19.402.15 and 19.401.8.A, respectively. For WQR areas, the revised plans should account for the areas where slopes equal or exceed 25% for less than 150 ft, starting the measurement of the 50-ft vegetated corridor from the break in the 25% slope. For HCA areas, the revised plans should exclude from the HCA any areas of existing structures, patios, walkways, and similar development but should retain as HCA any landscaped areas. For the Willamette Greenway vegetation buffer, the measurement shall be 25 ft upland from the ordinary high water mark, measured horizontally and not by vertical elevation.

      The following site plans should be revised accordingly:

      (1) Existing Conditions (Drawing E01)

      (2) Existing Natural Resource Overlays (Figure 1 in Impact Evaluation section)

      (3) HCA Boundary Verification (Figure 3 in Impact Evaluation)

      (4) Preliminary HCA Impacts (Figure 4 in Impact Evaluation)

      (5) WQR Impacts (Figure 5 in Impact Evaluation)

      (6) Willamette Greenway Vegetation Buffer Impacts (Figure 1 in Mitigation Plan)

      (7) Mitigation Activities (Figure 2 in Mitigation Plan)

      (8) Construction Management Plan (Figure 1)

   e. Based on the revised site plans noted in Condition 1-d, provide an adjusted figure for WQR and HCA disturbance and a recalculation of mitigation plantings, at the ratio of 5 trees and 25 shrubs per 500 sq ft of disturbance.

   f. Provide a planting site plan showing the general locations and/or distributions of the various species, to ensure that species are located appropriately for the site conditions based on their various characteristics. The plan shall demonstrate that, to the greatest extent practicable, trees removed from the project area will be left within

the WQR and/or HCA, to preserve the riparian habitat functions the downed trees would serve if left to fall naturally over time.

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 point in the development and permitting process.

1. Conditional Use Permit

   As per MMC Subsection 19.905.6, the City will issue a conditional use permit upon approval of an application to allow major modification of an existing conditional use (including Willamette Greenway conditional uses). 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.

2. Development Standards

   Projects affecting designated natural resources are subject to the standards provided in MMC Subsection 19.402.11.A for protection of natural resources during development. In addition, projects requiring mitigation for impacts to natural resource areas are subject to the standards provided in MMC Subsection 19.402.11.B, including survival rates, minimum plant sizes, and others.

3. Erosion Control

   Restorative planting areas shall use compost mulch for ground cover in addition to the planned plants. The access road shall be restored with straw mulch or compost mulch in addition to the planned seeding. All erosion control measures must be properly installed prior to starting work at site.

4. 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 per MMC 8.08.070(I).

5. Expiration of Approval

   As per MMC 19.1001.7.E.1.a, proposals requiring any kind of development permit must complete both of the following steps:

   a. Obtain and pay for all necessary development permits and start construction within two (2) years of land use approval.

   b. Pass final inspection and/or obtain a certificate of occupancy within four (4) years of land use approval.

   As per MMC 19.1001.7.E.2.b, land use approvals shall expire unless both steps noted above have been completed or unless the review authority specifies a different expiration date in the land use decision to accommodate large, complex, or phased development projects.

Memorandum

otak

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Phone (503) 287-6825
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To:	Gary Klein
From:	Melanie McCandless
Copies:	Kevin Timmins, File
Date:	Revised: August 14, 2015
Subject:	Type III Land Use Review Application Narrative
Otak Project No.:	17347.A
Land Use File Nos.:	NR-2015-003 WG-2015-004

Introduction

This memo fulfills the Submittal Requirements for a land use application to the City of Milwaukie for pool removal and slope stabilization work at the Klein property, 10795 SE Riverway Lane (see attached Location Plan). This narrative supports the concurrent review of the following applications:

- Natural Resources (Type III)
- Willamette Greenway Conditional Use Review (Type III)
- Boundary Verification (Type I)

The application forms and fees were attached to the original submittal for completeness review. The fees included $2,000 for the Type III Natural Resources Application, $1,500 for the Type III Willamette Greenway Conditional Use Review (after 25% discount for concurrent application), and an additional $2,000 deposit for technical review of the Impact Evaluation and Alternatives Analysis memo. The Type I Boundary Verification is included in the Impact Evaluation and Alternatives Analysis memo and City staff indicated that no additional fees are due for this review concurrent with the Type III Natural Resources review.

This memo summarizes the work to be done and demonstrates compliance with approval criteria and development standards. Many of the approval criteria and development standards reference additional memos (under separate cover):

- Klein Property Impact Evaluation and Alternatives Analysis
- Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer Plan
- Klein Property Construction Management Plan
- Klein Property Erosion Control Plan

Responses to staff comments from the pre-application conference are included.

Project Narrative

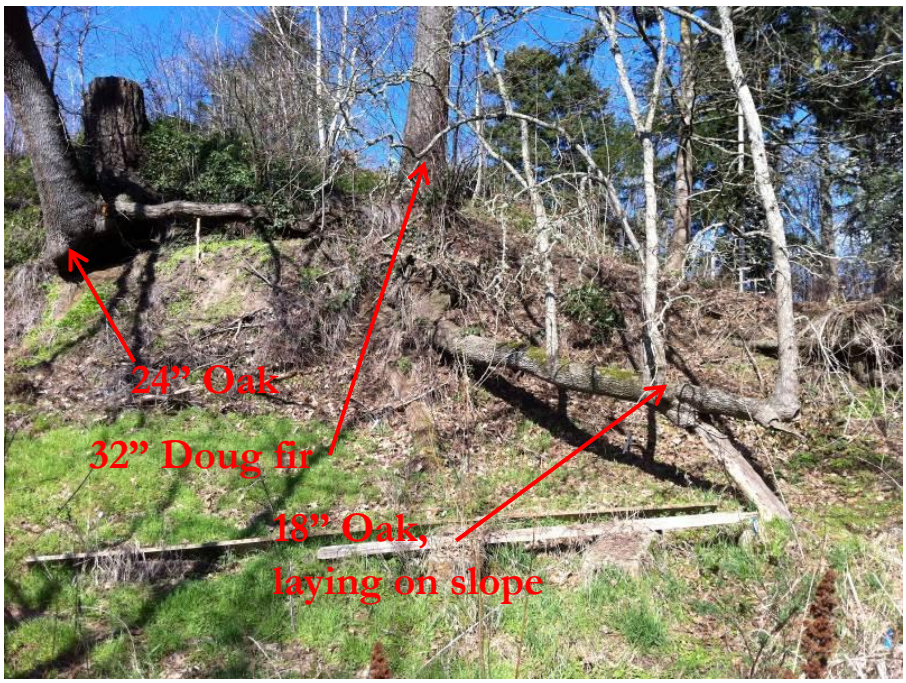
This project entails the removal of an existing swimming pool structure near the top of a steep slope, softening an oversteepened area of the slope, and restoring the disturbed area with native vegetation. Three trees with a diameter greater than six inches will be removed during the slope softening. A pool and wood deck shall be constructed set back from the top of slope.

Existing Uses

The property is used residentially with a single-family detached home and swimming pool (see Existing Conditions plan E01, attached). The house and yard are located above elevation 50 and the yard is generally flat though the property is surrounded by steep slopes facing Johnson Creek to the east and the Willamette River to the south. The pool is located near the edge of the yard and is in danger of failure from a receding slope (see Swimming Pool Decommissioning letter, attached).

At the southeast corner of the yard there is an oversteepened slope with near-vertical slopes and undermined trees (see Photographs 1 and 2). A 44" Doug fir tree was removed during the Johnson Creek Confluence project in 2011 due to the potential hazard during construction – this tree was incorporated into the log structures at the confluence. Currently, a 24" Oak tree is growing from the base of this stump. An 18" Oak tree is laying down the slope, growing from the base of a 32" Doug fir. The weight of these shallow-rooted trees is contributing to the risk of slope failure (see Geotechnical Site Investigation-Proposed Klein Residence Slope Modifications letter, attached).

Photograph 1: Oversteepened slope with 24" oak tree (left) growing from 44" Doug fir stump (top left, tree removed during confluence restoration project due to hazard).



Photograph 2: Oversteepened slope with 18" Oak tree (center right) laying on slope, coming from base of 32" Doug fir (top center).

Proposed Uses

The proposed use of the property post-project is unchanged (single-family residential). The existing pool will be removed and the area landscaped. The oversteepened slope area will be softened and restored with native vegetation. A new pool with a smaller footprint may be constructed, set back a minimum of 10 feet from the top of slope (see Preliminary Site Plan P01 and Preliminary Typical Section P02, attached). A wooden deck shall also be constructed within the footprint of the existing brick patio (see Preliminary Site Plan P01, attached).

Proposed Construction

The project proposes to decommission the existing pool, remove three trees from the oversteepened slope, and soften the slope to a more stable grade and replant native vegetation.

The pool shall be deconstructed in a manner that it will not hold water and backfilled with lighter materials to reduce the mass above the unstable slope. The backfill will not be sufficient to support structures and will be compacted to landscape standards (see Swimming Pool Decommissioning letter, attached).

The removed trees shall be placed above ordinary high water (elevation 18) on the floodplain of Johnson Creek near its confluence with the Willamette River. The softened slope shall be temporarily protected with erosion control measures and permanently stabilized with dense native vegetation. An assortment of native trees, shrubs and groundcovers shall be installed on the slope to

prevent future destabilization. The species were selected to aid in slope stabilization without recreating the current conditions of over-steepening due to shallow roots (see Geotechnical Site Investigation-Proposed Klein Residence Slope Modifications letter). Topsoil shall be stripped for reuse on the softened slope to aid vegetation establishment and any excess material removed shall be used to fill the decommissioned pool.

The new deck and pool shall be constructed in a way to limit the burden on the slope. The deck shall be constructed of wood, lighter than the existing brick patio, with a smaller total footprint. The pool shall be set back a minimum of 10 feet from the top of slope per the geotechnical recommendations (see Geotechnical Site Investigation-Proposed Klein Residence Slope Modifications letter).

Compliance with Approval Criteria and Development Standards

The Klein property is zoned Residential R-2 with the Willamette Greenway Overlay over the entire property and portions of the property are under Natural Resources overlays. As such, the proposed works needs to be in compliance with the base zone standards given in MMC Section 19.300, the Willamette Greenway standards given in MMC Section 19.401 and the Natural Resources standards given in MMC Section 19.402. Compliance with the approval criteria and development standards for each are discussed below.

Base Zone Standards (Section 19.300)

The current use of the property for a single-family detached dwelling is permitted under Table 19.302.2 and this use will not change through this work (see discussion of Proposed Uses above). No new dwellings are proposed, the yard size is not being modified, and the overall vegetation coverage is being restored to current conditions per the Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer Plan (under separate cover).

Overlay Standards

Willamette Greenway (Section 19.401)

The approval criteria given in MCC Subsection 19.401.6 are met as follows:

A. *Whether the land to be developed has been committed to an urban use; as defined under the State Willamette River Greenway Plan* - The land has not been committed to an urban use.

B. *Compatibility with the scenic, natural, historic, economic, and recreational character of the river* - Klein Property is a scenic feature at the confluence of Johnson Creek (Creek) and the Willamette River (River). The removal of the pool will protect the natural area along the banks of the River from disturbance or degradation due to structure failure. The tree removal and grading is to protect the River and Creek from debris input by slope failure. The disturbed area shall be replanted with native vegetation. This project does not affect economic or recreational aspects of the River.

C. *Protection of views both toward and away from the river* - The removal of trees during grading will temporarily open up views toward and away from the River but native species will be replanted per the Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan plans. The character of the views will not be substantially altered by this project.

D. *Landscaping, aesthetic enhancement, open space, and vegetation between the activity and the river, to the maximum extent possible* - See discussion of views above – native species shall replace vegetation removed during the slope grading. Additional removal of invasive species and planting of natives surrounding the disturbed area will further enhance the natural resources of the site (see Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan).

E. *Public access to and along the river, to the greatest possible degree, by appropriate legal means* - Currently there is no public access to the River on the Klein property but the River is accessible through Riverfront park immediately upstream (to the south). This project will not change the access from the Klein property.

F. *Emphasis on water-oriented recreational uses* - This work occurs above and outside the 100-year flood plain and does not change the recreational use characteristics of the site. This project does not constrain future recreational uses.

G. *Maintain or increase views between the Willamette River and downtown* - This project is downstream of downtown Milwaukie and does not substantially affect the views of the River from downtown. The views may be temporarily altered by the tree removal until the mitigation plantings grow in.

H. *Protection of the natural environment according to regulations in Section 19.402* - Although this project entails the removal of three trees and some native vegetation, the work is to protect water quality in the Creek and the River. The currently oversteepened slope is at risk of failure (see attached Geotechnical Site Investigation- Proposed Klein Residence Slope Modifications), and the proposed project addresses this risk. The disturbed area shall be replanted with native species (see Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan). See additional discussion of compliance with the natural resource regulations below.

I. *Advice and recommendations of the Design and Landmark Committee, as appropriate* – No advice or recommendation was received from the Design and Landmark Committee for this project.

J. *Conformance to applicable Comprehensive Plan policies* - This project is in conformance with the following applicable Comprehensive Plan policies:

- Neighborhood Organizations – the Type III Land Use review process will include the participation of the Historic Milwaukie neighborhood association.
- Floodplain – this work does not encroach on the special flood hazard area.

- Open Space – Although on private land, the Kleins maintain the area around the confluence as open space and work to control invasive species and promote the establishment of native vegetation. Their open space is viewable from Riverfront Park.
- Natural Resources – the purpose of this work is to protect the quality of the River and the Creek and temporary impacts will be mitigated according the policies of Section 19.402 of the MMC.
- Scenic areas – Klein Property is currently, and will continue to be, a scenic resource viewable from Riverfront Park. This project will not substantially alter the scenic character of the Klein property.

K. *The request is consistent with applicable plans and programs of the Division of State Lands* – This work is consistent with DSL regulations. No removal or fill will occur within Waters of the State. The removed trees are being placed above ordinary high water (elevation 18) and do not constitute an impact to jurisdictional waters (see attached letter from U.S. Army Corps of Engineers).

L. *A vegetation buffer plan meeting the conditions of Subsections 19.401.8.A through C* – A vegetation buffer plan has been developed in conjunction with the habitat conservation area and water quality resource mitigation plan (see Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan).

Natural Resources (Section 19.402)

Approval Criteria

The compliance with the Approval Criteria of MMC Subsection 19.402.12.B are discussed in the Klein Property Impact Evaluation and Alternatives Analysis memo (under separate cover). It was not possible to avoid impacting natural resources, though efforts have been made to minimize and mitigate the impacts. A mitigation plan has been developed in conjunction with the Willamette Greenway vegetation buffer plan (see Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan).

Development Standards

The compliance with the Approval Criteria of MMC Subsection 19.402.11 are discussed in the Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer Plan, the Klein Property Construction Management Plan, and the Klein Property Erosion Control Plan.

Supplementary Development Regulations (Section 19.500)

The property is not along a Major Street, no accessory structures are proposed, and no accessory uses are proposed and thus no supplementary development regulations govern this work.

Off-Street Parking and Loading Standards (Section 19.600)

No changes in parking are proposed for this project and thus the standards of Section 19.600 do not apply.

Public Facility Standards and Requirements (Section 19.700)

No new development (new construction, partitions, subdivisions or replats) or single-family residential expansions (new dwelling units or changes to gross floor area) are proposed and thus the standards of Section 19.700 do not apply.

Responses to Staff Comments in Preapplication Report

Building Department

Structural

A cover complying with ASTM F1346 shall be installed on the new pool.

Public Works

Erosion Control

An erosion control plan meeting the requirements of MMC Subsection 16.28.030 has been developed (see Klein Property Erosion Control Plan) and is being submitted with the land use application for review. An erosion control permit shall be obtained prior to placement of fill, site clearing, or land disturbances.

Floodplain Requirements

Work shall occur above elevation & outside the special flood hazard area with the exception of mitigation plants and placing the three removed trees near the confluence. The mitigation planting areas are described in the Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer Plan. The grading limits shall be delineated with high-visibility construction fence or high-visibility silt fence (for details, see Klein Property Erosion Control Plan).

Planning

Setbacks

No accessory structures are proposed for this project. No changes are proposed for the front, side, and rear yard setbacks.

Landscape

No net change in planted area is proposed for this project (replacing brick patio with wood deck, replacing existing pool with smaller pool, and replanting disturbed areas from grading oversteepened slope). For details, see the Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer Plan.

Parking

No changes to parking are proposed for this project.

Transportation

No changes to site transportation are proposed for this project.

Application Procedures

This narrative and application packet satisfies the application requirements. As discussed in the

Introduction to this memo, this narrative supports the concurrent review of the following applications:

- Natural Resources (Type III)
- Willamette Greenway Conditional Use Review (Type III)
- Boundary Verification (Type I)

The required application forms, application fees, and submittal requirements form were attached to the original submittal dated June 26, 2015. After the incompleteness letter, the site plans and supporting documents were revised and are attached to this narrative. Three copies have been provided for the initial review, with additional copies to be determined once the application is deemed complete.

Natural Resources

The approval criteria of MMC Subsection 19.401.6 are discussed in the Overlay Standards: Willamette Greenway section of this memo. A construction management plan has been prepared to the standards in MMC Subsection 19.402.9 (see Klein Property Construction Management Plan, attached). An Impact Evaluation and Alternatives Analysis memo and an Erosion Control Plan have been prepared according to the requirements of MMC Subsection 19.402.12 which address the Development Standards of MMC 19.402.11. The Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan addresses the mitigation plan requirements of MMC Subsection 19.402.11.B.

Attachments

- Site Plans
    - Location Plan
    - E01: Existing Conditions
    - P01: Proposed Site Plan
    - P02: Proposed Typical Section
- Preapplication Conference Report
- Geotechnical letters
    - Swimming Pool Decommissioning, Klein Residence
    - Geotechnical Site Investigation, Proposed Klein Residence Slope Modifications
- Letter from U.S. Army Corps of Engineers
- Site Plans, scaled to letter-sized pages (8.5" x 11")

Site Plans

otak®

HanmiGlobal Partner

Klein Property Slope Stabilization

Location Plan

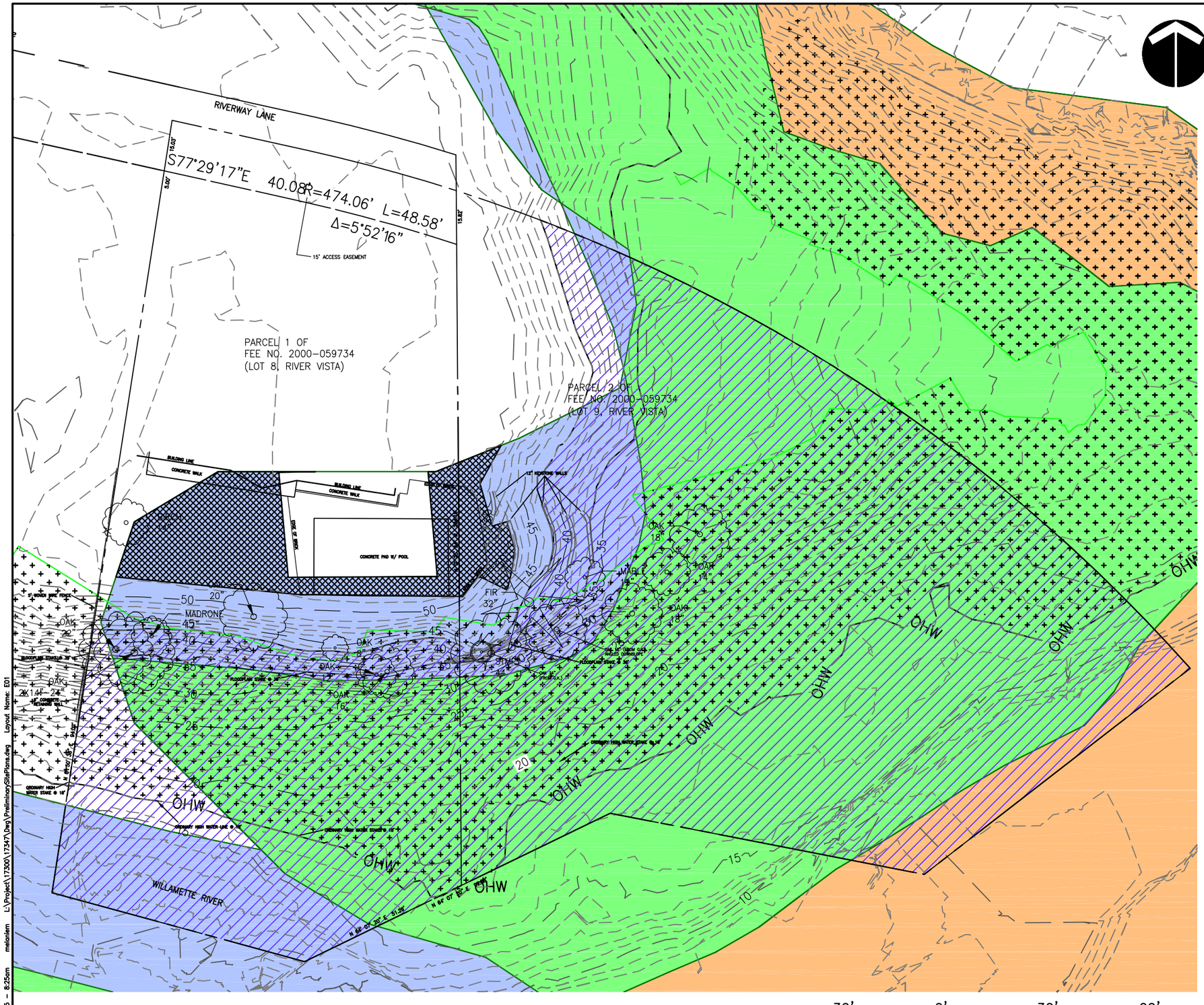
200 100 0 200 Feet

N

Taxlots

2-ft contours

10-ft contours



LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (5') – EXISTING
- MINOR CONTOUR (1') – EXISTING
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- HCA – LOW VALUE (FROM MILWAUKIE GIS)
- HCA – MODERATE VALUE (FROM MILWAUKIE GIS)
- HCA – HIGH VALUE (FROM MILWAUKIE GIS)
- WILLAMETTE GREENWAY VEGETATION BUFFER (TO ELEVATION 43 FT NAVD88, 25 FT UPLAND FROM OHW = 18 FT NAVD88)
- WATER QUALITY RESOURCE BUFFER (50 FT BUFFER FROM 2-YEAR FLOOD ELEVATION OF 18.2 FT NAVD88)
- AREA REMOVED FROM HABITAT CONSERVATION AREA (2,310 SF)

NATURAL RESOURCE OVERLAY DATA PROVIDED BY CITY OF MILWAUKIE PLANNING STAFF (APRIL 28, 2015). ORDINARY HIGH WATER IS ASSUMED TO BE AT ELEVATION 18.

THE 100-YEAR FLOOD ELEVATION IS ASSUMED TO BE ELEVATION 36 FROM THE EFFECTIVE FLOOD INSURANCE RATE MAP (MAP NUMBER 41005C0009D PANEL 9, ZONE A).

TOPOGRAPHIC SURVEY PERFORMED IN DECEMBER 2014 AND MAPPED IN JANUARY 2015. BASIS OF BEARINGS ARE GPS COORDINATES ORGN NAD83, 2011 EPOCH (2010). VERTICAL DATUM IS NAVD88.

TOPOGRAPHY BEYOND SURVEY LIMITS DERIVED FROM PUBLICLY-AVAILABLE LIDAR DATA (GIS).

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM			Initial Issue Date:
Drawn	MCM			February, 2015
Checked	KJT			

NOT FOR CONSTRUCTION

Not for Construction
Preliminary Only

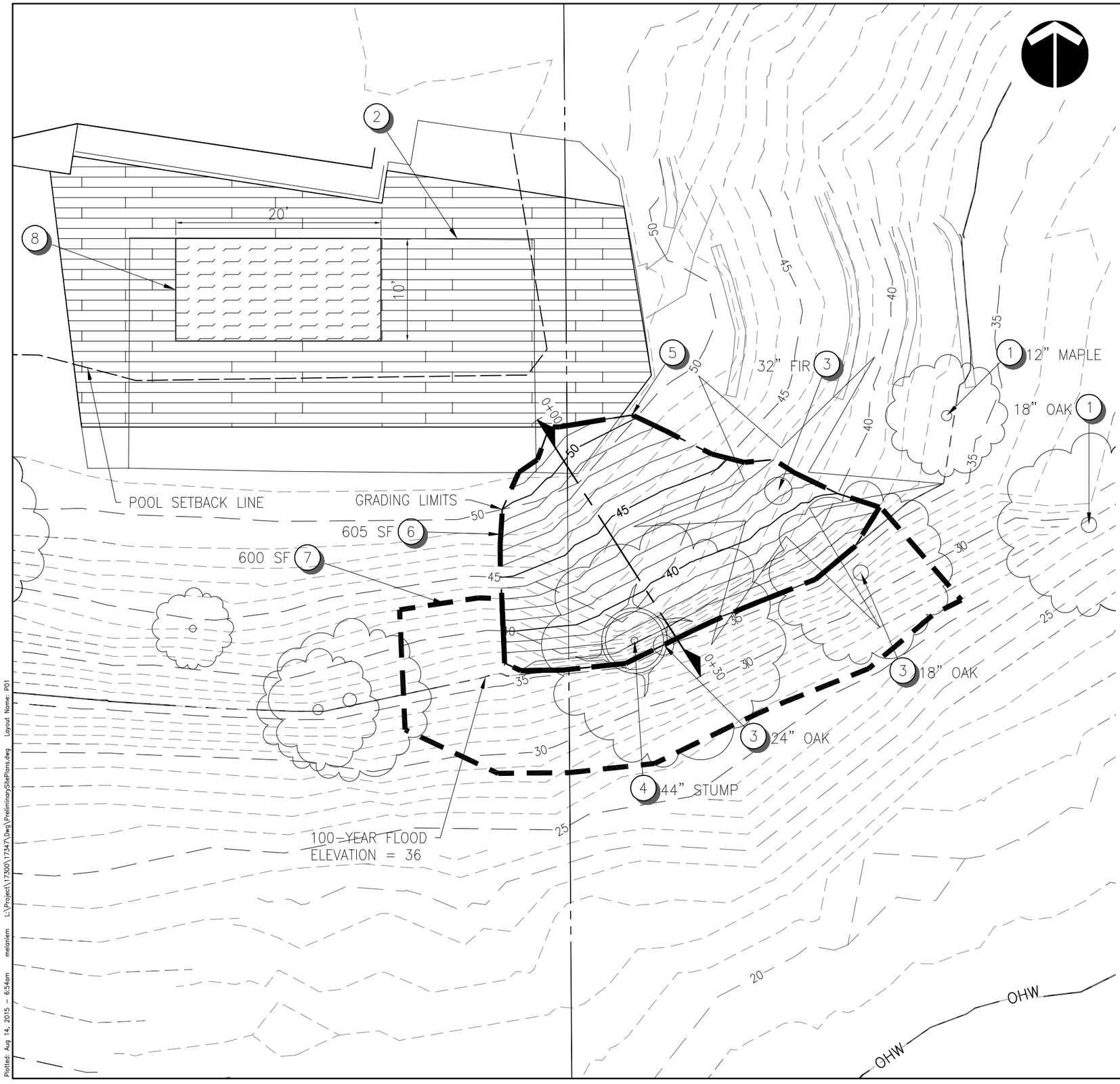
KLEIN PROPERTY SLOPE STABILIZATION

Existing Conditions

otak
HanmiGlobal Partner
808 SW 3RD Ave., Suite 300
Portland, OR 97204
Phone: (503) 287-6825
Fax: (503) 415-2304
www.otak.com

17347
Project No. Drawing No.
E01
Sheet No.

Plotted: Aug 14, 2015 – 8:25am melaniem L:\Project\17300\17347\Dwg\PreliminarySitePlans.dwg Layout Name: E01



LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (5') – EXISTING
- MINOR CONTOUR (1') – EXISTING
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- SECTION LINE
- MAJOR CONTOUR (5') – PROPOSED
- MINOR CONTOUR (1') – PROPOSED
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- EXISTING POOL
- EXISTING BRICK PATIO
- PROPOSED DECK (APPROX.)
- PROPOSED POOL (APPROX.)
- PERMANENT DISTURBANCE MITIGATION AREA
- BUFFER ENHANCEMENT AREA

CONSTRUCTION NOTES

1. PROTECT EXISTING NATIVE VEGETATION BEYOND GRADING LIMITS (SEE EROSION CONTROL PLAN).
2. REMOVE EXISTING POOL AND BRICK PATIO
3. REMOVE EXISTING TREE
4. REMOVE STUMP
5. GRADE AT APPROX. 1.5H:1V SLOPE, MATCHING EXISTING GROUND AT GRADING LIMITS (SEE SECTION). APPROXIMATELY 45 CY CUT.
6. PLANT NATIVE TREES, SHRUBS AND GROUNDCOVERS (SEE MITIGATION PLAN).
7. PLANT NATIVE TREES AND SHRUBS AND (SEE MITIGATION PLAN).
8. CONSTRUCT WOOD DECK AND POOL

10' 0' 10' 20'

SCALE IN FEET

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM		Initial issue	February, 2015
Drawn	MCM			
Checked	KJT			

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION

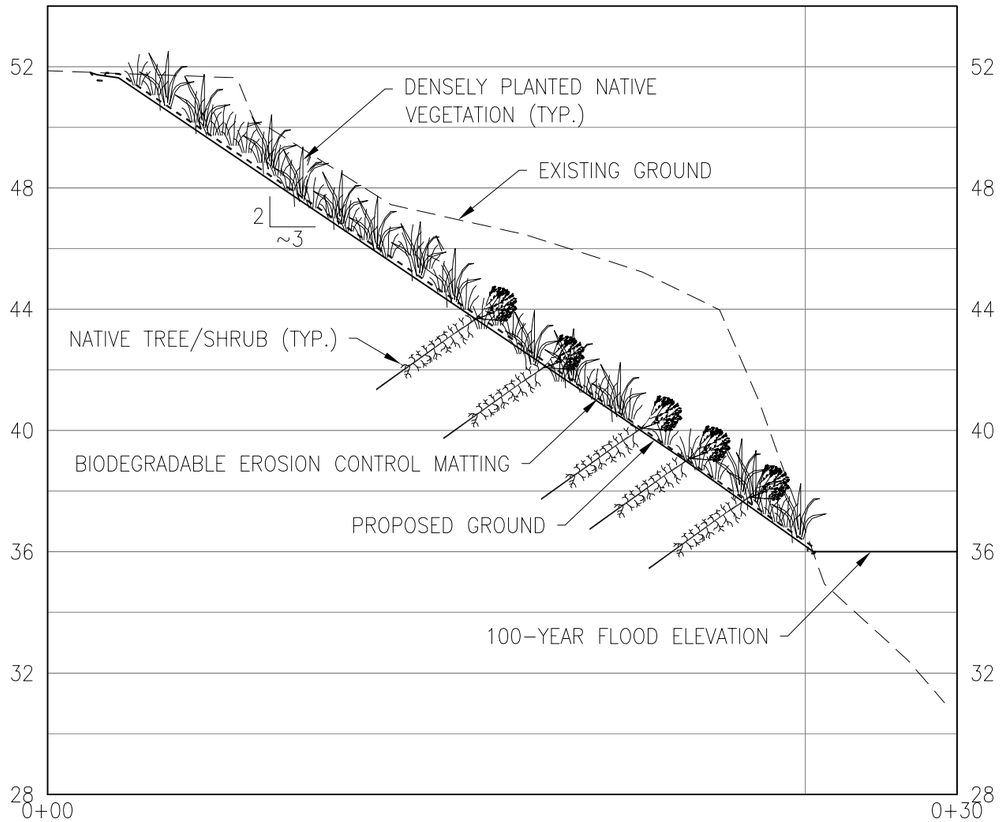
Preliminary Site Plan

Not for Construction
Preliminary Only

otak
HanmiGlobal Partner
808 SW 3RD Ave., Suite 300
Portland, OR 97204
Phone: (503) 287-6825
Fax: (503) 415-2304
www.otak.com

17347
Project No. Drawing No.
P01
Sheet No.

Plotted: Aug 14, 2015 – 6:54am melonlem L:\Project\17300\17347\Dwg\Preliminary\SitePlans.dwg Layout Name: P01



SECTION VIEW
NO VERTICAL EXAGGERATION

GENERAL NOTES:

A. AREAS BEYOND GRADING LIMITS SHALL BE PROTECTED FROM DISTURBANCE.

B. GRADED SLOPE SHALL BE PROTECTED WITH BIODEGRADABLE EROSION CONTROL MATTING.

C. GRADED SLOPE SHALL BE RESTORED WITH NATIVE VEGETATION.

NO.	DATE	BY	REVISION COMMENTS
Design	MCM		
Drawn	MCM		
Checked	KJT		
Date			Initial Issue Date: February, 2015

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION

Preliminary Typical Section

Not for Construction
Preliminary Only

5' 0' 5' 10'
SCALE IN FEET

otak
HanmiGlobal Partner
808 SW 3RD Ave., Suite 300
Portland, OR 97204
Phone: (503) 287-6825
Fax: (503) 415-2304
www.otak.com

17347
Project No. Drawing No.
P02
Sheet No.

Plotted: Aug 14, 2015 - 6:56am melaniem L:\Project\17300\17347\Dwg\PreliminarySitePlans.dwg Layout Name: P02

Preapplication Conference Report

otak®

HanmiGlobal Partner

May 28, 2015

Melanie McCandless
Otak, Inc
808 SW 3rd Ave, Suite 300
Portland, OR 97204

Re: Preapplication Report

Dear Melanie:

Enclosed is the Preapplication Report Summary from your meeting with the City on May 14, 2015, concerning your proposal for action on property located at 10795 SE Riverway Lane.

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 Director may require a new preapplication conference.

- If a development proposal is significantly modified after a preapplication conference occurs, the Planning Director may require a new preapplication conference.

If you have any questions concerning the content of this report, please contact the appropriate City staff.

Sincerely,

B. Marston

Blanca Marston
Administrative Specialist II

Enclosure

cc: Gary and Sharon Klein
File

CITY OF MILWAUKIE

PreApp Project ID #: 15-010PA

PRE-APPLICATION CONFERENCE REPORT

This report is provided as a follow-up to a meeting that was held on 5/14/2015 at 10:00 AM

Applicant Name: **Melanie McCandless**

Company: **Otak, Inc.**

Applicant 'Role': Other

Address Line 1: 808 SW 3rd Avenue, Suite 300

Address Line 2:

City, State Zip: Portland OR 97204

Project Name:

Description:

ProjectAddress: **10795 SE Riverway Lane**

Zone: Residential R-2

Occupancy Group:

ConstructionType:

Use: Single family residential

Occupant Load:

AppsPresent: Melanie McCandless, Gary & Sharon Klein.

Staff Attendance: Vera Kolias, Samantha Vandagriff, Stefan Heisler, Chrissy Dawson

BUILDING ISSUES

ADA:

Structural: If the pool is replaced a barrier complying with the Oregon Residential Specialty Code (ORSC) section AG105 shall be installed surrounding the pool. The barrier shall be at least 48 inches above grade measured on the side of the barrier which faces away from the swimming pool. Openings in the barrier shall not allow the passage of 4-inch-diameter sphere. Exeption: A safety cover that complies with ASTM F 1346 can be used in place of the required barrier.

Mechanical:

Plumbing:

Plumb Site Utilities:

Electrical:

Notes:

Please note all drawings must be individually rolled. If the drawings are small enough to fold they must be individually folded.

FIRE MARSHAL ISSUES

Fire Sprinklers:

Fire Alarms:

Fire Hydrants:

Turn Arounds:

Addressing:

Fire Protection:

Fire Access:

Hazardous Mat.:

Fire Marshal Notes: See attached.

PUBLIC WORKS ISSUES

Water: N/A

Sewer: N/A

Storm: N/A

Street: N/A

Frontage: N/A

Right of Way: N/A

Driveways: N/A

Erosion Control: Per Code Section 16.28.020(C), an erosion control permit is required prior to placement of fill, site clearing, or land disturbances, including but not limited to grubbing, clearing or removal of ground vegetation, grading, excavation, or other activities, any of which results in the disturbance or exposure of soils exceeding five hundred square feet.

Code Section 16.28.020(E) states that an erosion control permit is required prior to issuance of building permits or approval of construction plans. Also, Section 16.28.020(B) states that an erosion control plan that meets the requirements of Section 16.28.030 is required prior to any approval of an erosion control permit.

Traffic Impact Study: N/A

PW Notes:

FLOOD PLAIN REQUIREMENTS
The proposed development shall comply with all requirements of Milwaukie Municipal Code Title 18 – Flood Hazard Regulations. No work shall permanently impact areas below the 100 year flood elevation of 36 feet. Grading limits shall be delineated by temporary silt fencing. Permits required to relocate trees to the Johnson Creek Confluence shall be obtained from the US Army Corps of Engineers.

PLANNING ISSUES

Setbacks:

Residential zone R-2: front yard 15 ft; side yard 5ft; rear yard 15 ft. Accessory structures (sheds, detached garages, etc.) cannot be located in the required front yard or street side yard. Cornices, eaves, canopies, sunshades, gutters, steps, unroofed landings, and flues may project up to 24 inches into a required side yard and up to 36 inches into a required front or rear yard.

Landscape:

The R-2 zone requires that 15% of the total area of the lot be left or planted in trees, grass, shrubs, planting beds, etc. No more than 20% of the required vegetation area shall be covered in mulch or bark dust.

At least 40% of the front yard shall be vegetated. The front yard vegetation area required by this subsection counts toward the minimum required vegetation for the lot. A property may provide less than the 40% of the front yard vegetation requirement if it is necessary to provide a turnaround area so that vehicles can enter a collector or arterial street in a forward motion.

Parking:

Single-family residential uses require a minimum of 1 off-street parking space per dwelling unit (minimum 9 ft by 18 ft) upon development. Required spaces cannot be located in a required front or street side yard. Parking and maneuvering areas must be paved or otherwise hard, durable, dust-free surfaces. The use of pervious materials is allowed and encouraged. Uncovered parking spaces and maneuvering areas cannot exceed 50% of the front yard area. See MMC Section 19.607 for more details.

Transportation Review:

The City's transportation requirements are located in MMC 19.700.

Application Procedures:

The proposed development (decommissioning of the swimming pool and related earthwork) would involve the following land use applications:
Natural Resources (Type III)
Willamette Greenway Conditional Use review (Type III)
Natural Resources Boundary Verification review (Type II)

Application procedures are described below.

Willamette Greenway (MMC 19.401): A greenway conditional use is required for all intensification or change of use, or alteration of the vegetation buffer area, or development. Approval shall be granted only if the criteria in Subsection 19.401.6 are met. A new conditional use is a Type III land use review process.

Natural Resources (MMC 19.402): The regulations in Section 19.402 apply to all properties that contain, or are within 100 ft of a WQR and/or HCA as shown on the Milwaukie Natural Resource Administrative Map. The subject property contains both WQR and HCA and is entirely within 100 ft of the WQR. The proposed work exceeds 150 sf within the HCA and within 100 ft of a WQR, and therefore requires a Type III review.

Natural Resources Boundary Verification review (19.402.15): The applicant has indicated that they would like to pursue verifying the boundary of the natural resources present on the site, specifically the HCA, although this is not required. Corrections to mapped WQRs and/or detailed verification of mapped HCAs may be proposed according to a Type II process, subject to the procedures in 19.402.15.A.2.b for detailed verification of HCAs.

The City allows multiple land use applications to be processed either concurrently or individually, as per MMC 19.1001.6.B. The applicant has indicated an interest in expediting the process and may choose to bundle the Natural Resource Review (Type III), Willamette Greenway (Type III), and Boundary Verification review (Type II) applications for concurrent review through the Type III process.

Application fees are based on the current fee schedule. Fees are typically updated on July 1st of each year.

For multiple applications, the most expensive fee is collected in full, with a 25-percent discount for each additional application. For the current fiscal year (until June 30, 2015), the following fees are in effect for the various levels of land use application review: Type I ($200), Type II ($1,000), and Type III ($2,000). There is a $500 fee for appealing any decision to the relevant appeal authority listed in MMC Table 19.1001.5.

For the City's initial review, the applicant should submit 5 complete copies of the application, including all required forms and checklists. A determination of the application's completeness will be issued within 30 days. If deemed incomplete, additional information will be requested. If deemed complete, additional copies of the application will be required for referral to other departments, the Neighborhood District Association (NDA), and other relevant parties and agencies. City staff will inform the applicant of the total number of copies needed.

Land use application submission materials are listed below for your convenience. Please refer to the handouts distributed at the pre-application conference for more detailed information.

1. All applicable land use applications forms with signatures of property owners.
2. All applicable land use application fees.
3. Completed and signed "Submittal Requirements" forms.
4. 5 copies of an existing conditions and a proposed conditions site plan, both to scale. These two site plans can be combined onto one site plan. Once the application is deemed complete, additional copies will be requested for distribution to City departments, applicable governmental agencies, and the neighborhood district association for review.

Type III applications are quasi-judicial in nature and are decided by the Planning Commission at a public hearing. The Planning Commission hears land use applications on the second and fourth Tuesdays of every month, and completed applications need to be submitted to the Planning Department no later than 45 days prior to the target Planning Commission hearing. In general, staff recommends that applications be submitted one to two weeks before the 45-day deadline in order to ensure that there is time to make the applications complete if they are initially deemed incomplete. Once the Planning Commission renders a decision, there is a fifteen calendar-day appeal period. Building permits will be accepted for review only after the appeal period for all land use decisions has expired.

The applicant will also be required to submit a $2,000 deposit for the peer review of the required technical report that evaluates impacts and contains the alternatives analysis, per MMC 19.402.12.

Natural Resource Review: This property is located entirely within the Willamette Greenway, portions contain Habitat Conservation Area and Water Quality Resource, and is entirely located within 100 ft of the WQR.

Willamette Greenway (MMC 19.401): A greenway conditional use is required for all intensification or change of use, or alteration of the vegetation buffer area, or development. Approval shall be granted only if the criteria in Subsection 19.401.6 are met. A new conditional use is subject to Type III review and approval by the Planning Commission under Section 19.1006.

Per 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;
B.Compatibility with the scenic, natural, historic, economic, and recreational character of the river;
C.Protection of views both toward and away from the river;
D.Landscaping, aesthetic enhancement, open space, and vegetation between the activity and the river, to the maximum extent practicable;
E.Public access to and along the river, to the greatest possible degree, by appropriate legal means;
F.Emphasis on water-oriented and recreational uses;
G.Maintain or increase views between the Willamette River and downtown;
H.Protection of the natural environment according to regulations in Section 19.402;
I.Advice and recommendations of the Design and Landmark Committee, as appropriate;
J.Conformance to applicable Comprehensive Plan policies;
K.The request is consistent with applicable plans and programs of the Division of State Lands;
L.A vegetation buffer plan meeting the conditions of Subsections 19.401.8.A through C.
More information on the requirements for a WG conditional use can be found in MMC 19.401.

Natural Resources (MMC 19.402): The regulations in Section 19.402 apply to all properties that contain, or are within 100 ft of a WQR and/or HCA as shown on the Milwaukie Natural Resource Administrative Map. The subject property contains both WQR and HCA and is entirely within 100 ft of the WQR. The proposed work exceeds 150 sf within the HCA and within 100 ft of a WQR, and therefore is subject to Type III review and approval by the Planning Commission under Section 19.1006.

The application materials should include the following information:

- Information found required in 19.402.9 Construction Management Plans
- Demonstrate compliance with 19.402.11 Development Standards
- Type III Natural Resource review is subject to 19.402.12 General Discretionary Review.
  - 19.402.12.B identifies the approval criteria for Type III applications. Application materials should demonstrate how the proposal complies with the listed criteria.

Natural Resources Boundary Verification review (19.402.15): The applicant has indicated that they would like to pursue verifying the boundary of the natural resources present on the site. Corrections to mapped WQRs and/or detailed verification of mapped HCAs may be proposed according to a Type II process, subject to the procedures in 19.402.15.A.2.

Lot Geography: The site is generally triangular in shape.

Planning Notes: The preapplication conference is valid for purposes of submitting future land use applications as described in MMC 19.1002.4. A preapplication conference is valid for 2 years.

ADDITIONAL NOTES AND ISSUES

County Health Notes:

Other Notes:

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 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
Bonnie Lanz - Permit Technician - 503-786-7613

ENGINEERING DEPARTMENT
Jason Rice - Engineering Director - 503-786-7605
Brad Albert - Civil Engineer - 503-786-7609
Vacant - Civil Engineer - 503-786-7602
Chrissy Dawson - Engineering Technician II - 503-786-7610
Alex Roller - Engineering Technician I - 503-786-7695

COMMUNITY DEVELOPMENT DEPARTMENT
Alma Flores - Community Develop. Dir. - 503-786-7652
Marcia Hamley - Admin Specialist II - 503-786-7656
Alicia Martin -Admin Specialist II - 503-786-7600
Blanca Marston -Admin Specialist II - 503-786-7600

PLANNING DEPARTMENT
Dennis Egner - Planning Director - 503-786-7654
Li Alligood - Senior Planner - 503-786-7627
Brett Kelver - Associate Planner - 503-786-7657
Vera Kolias - Associate Planner - 503-786-7653

CLACKAMAS FIRE DISTRICT
Mike Boumann - Lieutenant Deputy Fire Marshal - 503-742-2673

Clackamas County Fire District #1
Fire Prevention Office

E-mail Memorandum

To: Blanca Marston, City of Milwaukie Planning Department

From: Matt Amos, Fire Inspector, Clackamas Fire District #1

Date: **5/13/2015**

Re: Removal of swimming pool 10795 SE Riverway Lane 15-010PA

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:

COMMENTS:

1. The Fire District has no comments for this proposal.

2930 S.E. Oak Grove Blvd. • Milwaukie, OR 97267 • 503-742-2660

Geotechnical Letters

otak®
HanmiGlobal Partner

April 14, 2015

Ms. Melanie C. McCandless
Otak, Inc.
808 SW Third Avenue Suite 300
Portland, Oregon 97204

Re: Swimming Pool Decommissioning
Klein Residence
Milwaukie, Oregon
2200-00

Dear Ms. McCandless:

Per your request, we have completed our site reconnaissance and subsurface explorations for the Klein Residence, located at 10795 SE Riverway Lane in Milwaukie, Oregon. The subject property is located at the confluence of Johnson Creek and the Willamette River. The east and south property boundaries consist of Creek and River banks. Based on our discussions and observations, we understand that the face of the southern slope has been subject to surface erosion and sloughing and is receding.

The purpose of our work was to provide geotechnical engineering recommendations for the removal of the existing swimming pool, located adjacent to the slope crest in the backyard of the subject house. Our scope of work included a preliminary geologic site reconnaissance as well as completion of drilled borings adjacent to the swimming pool.

The Klein Residence is surrounded on three sides by relatively tall (35 feet high) creek and river banks. The east facing banks are generally at reasonable gradients and show no particular signs of movement. The south bank however, is susceptible to erosion and undermining during high water events. This erosion has caused the crest of the slope (the outer edge of the yard) to creep towards the house. The house is located some distance back from the crest of the slope and is not susceptible to the bank erosion. However, the receding slope crest is encroaching on the concrete swimming pool deck. The pool is located in the vicinity of the most active regression and could ultimately fail during a larger slope movement.

Our borings (completed within the yard, between the pool and slope crest) encountered approximately 25 feet of silts and fine sands overlying intact basalt bedrock. During high water, the bedrock concentrates the energy of the River into the overlying sands and silts which are highly susceptible to erosion. This erosion removes material at the toe of the slope and results in oversteepened and even overhanging areas that later slough or fail. This process has resulted in removing more than 10 feet of backyard. We have prepared recommendations to reduce the slope retreat under separate cover.

The swimming pool structure is not, in and of itself, likely to contribute to slope instability. To the contrary, the structure likely assists in reinforcing the slope. The pool does create issues with respect to maintaining, and living with, the slopes. First, the pool represents the outward boundary of the developed site. As such, the receding slope is encroaching on the swimming pool first. Further, when the pool is full of water it is heavy and loads the slope. Lastly, the pool is a potential source of water into the slope (should it leak).

Although the pool could potentially be maintained for a number of years, it would be prudent to remove it. As noted, the structure itself is not problematic and as such, the portions that do not interfere with landscaping could be left in place. It is important the pool no longer hold water that would load the slope. We recommend perforating the bottom

of the pool to create leaks. Lastly, the pool should be backfilled with relatively lightweight fill to minimize the weight applied to the slope.

Demolition Recommendations. The demolition would generally involve removing the surrounding concrete deck and the upper portion of the pool walls. The wall removal would generally be undertaken down to the deepest elevation where a subsequent small excavation might be made. For residential sites, that would typically be two feet. The actual depth of removal should be made based on the future use of the pool area. We understand that the walls are bolted steel and that removal of the upper portion may be difficult.

The pool should not be allowed to pond surface water as that will place a large surcharge on the site. For that reason, the floor of the pool should be perforated. That could be accomplished by breaking up the floor with a jackhammer or pick, or by coring holes through the pool floor.

Backfill recommendations. Due to the proximity of the pool area to the adjacent slope, the backfilled pool would not be suitable for the development of subsequent structures. As such, the soil placement and compaction could be to landscape standards. The intent of the work would be to minimize subsequent surface settlement. Generally, the soil should be placed in horizontal lifts of no more than 8 loose inches and be compacted with hand-operated soil compaction devices. The point of this compaction would be to reduce vertical permeability of the soil and to mitigate future settlement. We recommend that backfill consist of silts or sands rather than gravel or crushed rock in order to limit weight and permeability.

The initial backfill could consist of the concrete demolition debris, although we would recommend that the concrete be broken up into chunks no larger than 8 inches and that the chunks be spread out and blended thoroughly with fine grained material to fill all voids.

We strongly recommend that site preparation, grading, and any pathway paving be conducted during extended periods of warm, dry weather, typical of summer through early fall months.

CLOSING

The work was performed for the exclusive use of Otak, Inc. and their client and agents for specific geotechnically related application to this project. This work was conducted in accordance with generally accepted professional practices in the same or similar localities related to the nature of the work accomplished, at the time the services were performed. No other warranty, express or implied, is made.

This report presented Apex Companies, LLC's geotechnical engineering evaluation and recommendations for the proposed project. We trust that this report meets your needs. If you have any questions, if we can be of further assistance, or if we may provide any additional information or clarification of this project, please call. We look forward to working with you in the future.

Sincerely,
Apex Companies, LLC

REGISTERED PROFESSIONAL ENGINEER 14,431 OREGON JULY 26, 1989 STUART ALBRIGHT
EXPIRES 12/31/15

Stuart Albright, P.E.
Principal Geotechnical Engineer

Adam Reese, C.E.G.
Associate Engineering Geologist

April 14, 2015

Ms. Melanie C. McCandless
Otak, Inc.
808 SW Third Avenue Suite 300
Portland, Oregon 97204

Re: Geotechnical Site Investigation
Proposed Klein Residence Slope Modifications
Milwaukie, Oregon
2200-00

Dear Ms. McCandless:

Per your request, we have completed our site reconnaissance and subsurface explorations for the Klein Residence, located at 10795 SE Riverway Lane in Milwaukie, Oregon. The subject property is a single family residential parcel, located at the confluence of Johnson Creek and the Willamette River. The developed portion of the site is relatively flat with the east and south property boundaries, consisting of steep creek and river banks. The location of the site is shown on our Vicinity Plan, Plate 1. Based on our discussions and observations, we understand that the face of the southern slope has been subject to surface erosion and sloughing, and is receding.

The purpose of our work was to provide geotechnical engineering recommendations relative to addressing the slope regression. Our scope of work included a preliminary geologic site reconnaissance, as well as completion of drilled borings adjacent to the swimming pool.

Site Reconnaissance. The Klein Residence is surrounded on three sides by relatively tall (35 feet high) creek and river banks. The east facing banks are generally at reasonable gradients and show no particular signs of movement. However, the south bank is susceptible to erosion and undermining during high water events. This erosion has caused the crest of the slope (the outer edge of the yard) to creep towards the house.

During our reconnaissance of the south facing bank, we noted that central portion of the bank is quite oversteepened with localized gradients approaching 1H:1V and limited vertical elements. This oversteepening appears to be the result of erosion during high water events. The erosion is undermining a number of trees which are currently being supported by their upper roots exclusively. In general, the trees show evidence of downslope translation. Evidence of past tree failures can be seen up and down the river bank. The central portions of the slopes are generally sparsely vegetated. This is due to a combination of active erosion and shading from the trees. The denuded soil is particularly susceptible to erosion from creek and river action.

Subsurface Explorations. We completed two drilled borings between the pool and slope crest. The borings were completed using a small, man-portable drill rig. Locations of the borings are shown on the Site Plan, Plate 1. Both borings encountered approximately 25 feet of silts and fine sands overlying intact basalt bedrock. The soil profile is consistent with the conditions observed during our reconnaissance. Logs of our borings are included in the Appendix.

SLOPE STABILITY

During high water, the bedrock present on the lower 10 feet of the slopes concentrates the energy of the river into the overlying sands and silts. Those soils are highly susceptible to erosion. This erosion removes material at the toe of

the slope and results in oversteepened and even overhanging areas that later slough or fail. This process has resulted in removal of more than 10 feet of backyard.

The house structure is located some 30 feet back from the crest of the slope and is not susceptible to the bank erosion and slope regression. If the pool were to be maintained, it would be necessary to construct a large pile wall to support the pool area. We have reviewed this approach with the property owner and project team, and the homeowner determined that it was not cost effective given the value of the pool. As a result, the goal of the project is to reduce future slope regression in a cost effective manner in order to preserve as much lawn as possible and potentially allow for the development of a future pool.

In order to develop truly stable banks, the portions of the slopes above the height of inundation by Johnson Creek and the Willamette River would need to be graded to 2H:1V or flatter. Further, the portions below the inundation elevation would be graded to 3H:1V or flatter and be armored. Such gradients are not feasible for this site without encroaching on the existing development and/or placing large quantities of fill below ordinary high water.

After discussions with the homeowners and project team, the approach selected for the site consists of softening the steepest slopes, removing the swimming pool, and planting the slope faces with appropriate vegetation. We have worked with the project team to lay out a series of cross-sections showing excavations that would result in a smaller yard for the house and demolition of the swimming pool. The finished slope gradients will be slightly steeper than 1.5H:1V. This gradient is consistent with the slopes around the house that have performed reasonably well. Site grading will be completed above the ordinary high water line (Elevation 18).

In general, the slope softening will be accomplished by excavation rather than fill placement. It will be important not to add mass to the slopes through the use of retaining walls or rockeries. The finished gradients will be steeper than those that would generally be considered stable and any further increase in gradient would likely lead to reactivated failures.

Erosion Control. Apex recommends that finished cut and fill slopes be protected immediately following grading with matting, vegetation, or other approved erosion control methods. Water should not be allowed to flow over slope faces or drop from outfalls, but should be collected and routed to storm water disposal systems. Long term erosion control should be achieved through the planting of native vegetation over a dense pattern.

Vegetation. In general, the past and present large trees on the slopes have negatively impacted slope stability. Although the potential for trees to resist landslides is a widely held notion with the general public, in reality, the only true benefit is in deflecting rainfall. That benefit could be met with any number of low, shrub-like plantings. The destabilizing impact of trees comes with the increased mass of a mature tree. Large trees on steep slopes tend to lean downslope until they fall over. This process acts like a fulcrum and results in a large volume of material translating into the creek, contributing to the regression of the slope crest. Very mature cedar trees have deep roots and can assist in a very small way with resisting slope movements. Other trees are too shallow rooting to be of any particular assistance.

Undermined trees, and, in particular, the oaks that are growing out of the stumps of previously failed trees, should be removed from the slope. We recommend that the slopes be revegetated with dense shrub vegetation that can provide erosion cover from direct rainfall. Further, the slopes should be hydroseeded so that grasses can provide similar benefits until the larger vegetation takes hold. Willows and other live staked trees could be used sparingly on the lower slopes.

Future Development. The methodology proposed for the site is intended to reduce the slope regression rate. As previously noted, in order to avoid future regression entirely, a large structure of buttressing fill would be necessary. As such, we do not recommend extending the house closer to the slope crest than the current footprint. Surface

landscaping, including patios, could be developed but should generally be located more than 10 feet from the new slope crest.

A new swimming pool could be developed, although the edge of the pool structure should also be more than 10 feet from the slope crest. A new pool would require careful design and location to avoid recreating the existing slope issues.

GRADING RECOMMENDATIONS

Dry Weather Grading. We strongly recommend that site preparation and grading be conducted during extended periods of warm, dry weather, typical of summer through early fall months.

Site Preparation. Topsoil should be stripped from all fill areas. Topsoil and surface organic stripping will likely extend to depths of 2 or 3 inches, but may be deeper in localized areas. Further, organic fill soils are likely to be encountered in discrete locations. Such deposits should be treated as topsoil through removal from structural areas. Topsoil should not be re-used as structural fill but rather as surface cover to promote vegetation growth.

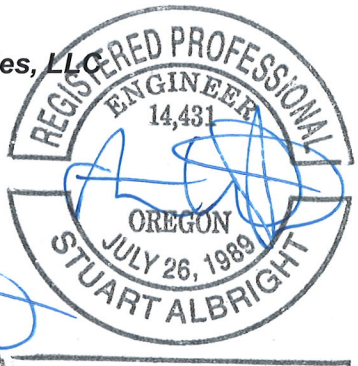
In general, fills should be limited to no more than two feet in thickness. During dry weather, structural fills may consist of virtually any relatively well-graded soil that is free of debris, organic matter, and high percentages of clay or clay lumps, and that can be compacted to the specifications listed below. However, if excess moisture causes the fill to pump or weave, those areas should be dried and re-compacted or removed and backfilled with compacted granular fill. In order to achieve adequate compaction during wet weather, or if proper moisture content cannot be achieved by drying, we recommend that fills consist of well-graded granular soils (sand or sand and gravel) that do not contain more than 5 percent material by weight passing the No. 200 sieve. In addition, it is usually desirable to limit this material to a maximum 6 inches in diameter for ease of compaction and future installation of utilities.

Fill Compaction Standards. Recommended compaction specifications should be based upon ASTM D 1557 (or AASHTO T-180) moisture density relationships. Compaction of fine-grained soils (native silt) to acceptable density levels during the wet season will be very difficult. If wet weather grading is attempted structural fill should consist of imported, clean, granular material.

CLOSING

This report presented Apex Companies, LLC's geotechnical engineering evaluation and recommendations for the proposed project. We trust that this report meets your needs. If you have any questions, if we can be of further assistance, or if we may provide any additional information or clarification of this project, please call. We look forward to working with you in the future.

Sincerely,
Apex Companies, LLC



Stuart Albright, P.E. EXPIRES 12/31/15
Principal Geotechnical Engineer

Adam Reese, C.E.G.
Associate Engineering Geologist

Note: Base map prepared from USGS 7.5-minute quadrangle of Lake Oswego, OR, dated 2014 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

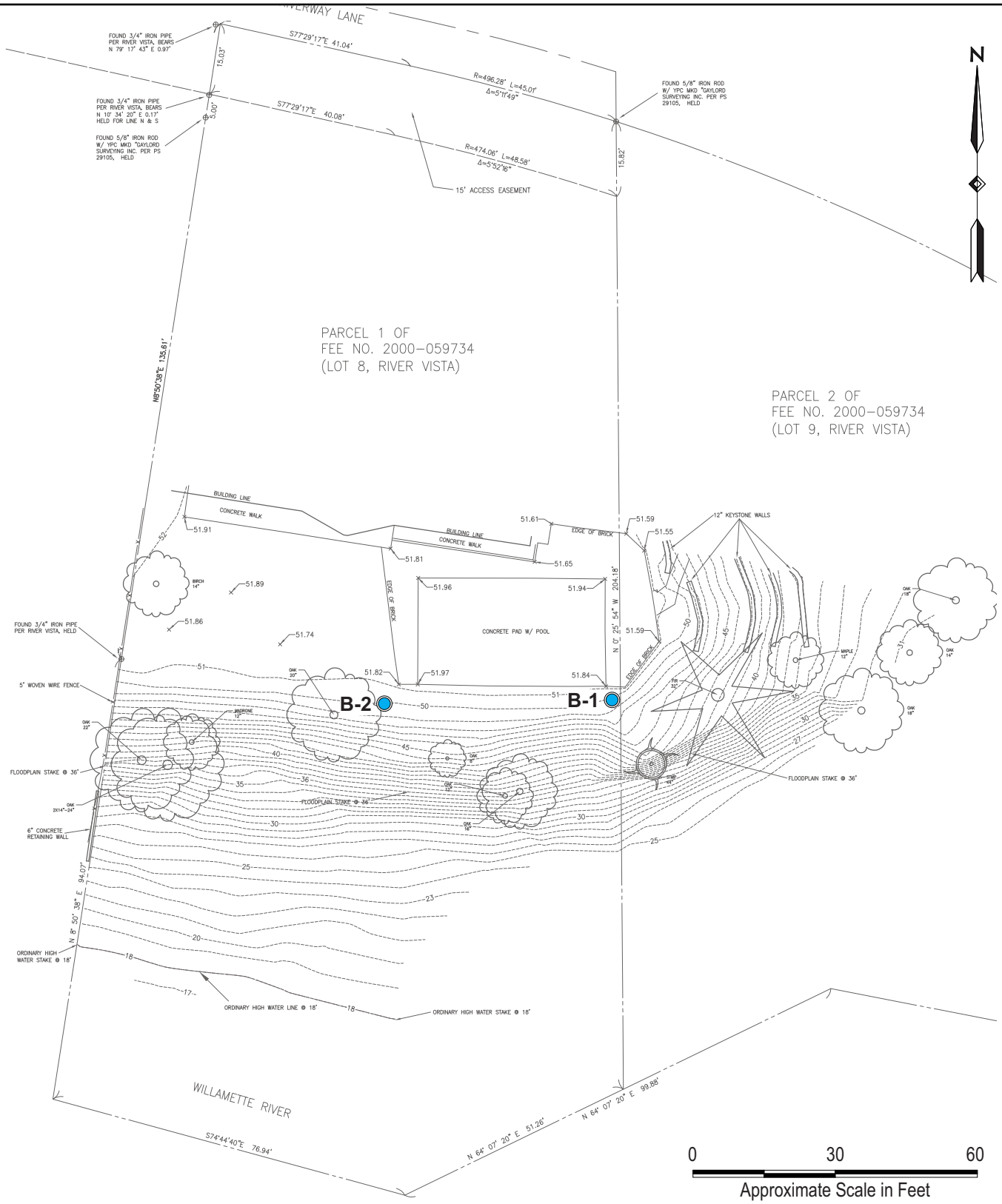
N

Site Location Map

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	2200-00	Figure
January 2015		1



Legend:

B-1 Boring Location

NOTE: Base map prepared from a Klein Property Topo. Survey from OTAK (January 2015).

Site Exploration Plan

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	2200-00	Figure 2
	January 2015		

Sample Descriptions

Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, and grain size, and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:
MAJOR CONSTITUENT with additional remarks; color, moisture, minor constituents, density/consistency.

Density/Consistency

Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits and Geoprobe® explorations is estimated based on visual observation and is presented parenthetically on test pit and Geoprobe® exploration logs.

SAND and GRAVEL Density	Standard Penetration Resistance in Blows/Foot
Very loose	0 - 4
Loose	4 - 10
Medium dense	10 - 30
Dense	30 - 50
Very dense	>50

SILT or CLAY Density	Standard Penetration Resistance in Blows/Foot
Very soft	0 - 2
Soft	2 - 4
Medium stiff	4 - 8
Stiff	8 - 15
Very Stiff	15 - 30
Hard	>30

Moisture

Dry	Little perceptible moisture.
Sl. Moist	Some perceptible moisture, probably below optimum.
Moist	Probably near optimum moisture content.
Wet	Much perceptible moisture, probably above optimum.

Minor Constituents

	Estimated Percentage
Not identified in description	0 - 5
Slightly (clayey, silty, etc.)	5 - 12
Clayey, silty, sandy, gravelly	12 - 30
Very (clayey, silty, etc.)	30 - 50

Sampling Symbols

BORING AND PUSH-PROBE SYMBOLS

- Split Spoon
- Sonic
- Tube (Shelby, Push-Probe)
- Cuttings
- Core Run
- * No Sample Recovery
- SSA Solid Stem Auger
- HSA Hollow Stem Auger
- MR Mud Rotary

TEST PIT SOIL SAMPLES

- Grab
- Bag
- Shelby Tube

Key to Exploration Logs

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number 2200-00

January 2015

Figure Key

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Boring Number: **B-1**

Project Number: **2200-00**
Logged By: J. Mattecheck
Date: January 22, 2015
Site Conditions: --
Drilling Contractor: Dan J. Fisher Excavation
Drilling Equipment: Limited Access (Big Beaver)
Sampler Type: SSA
Depth to Water (ATD): --
Surface Elevation: --

▲ Standard Penetration Resistance
(Blows per Foot)

Depth, feet	Sample ID	Sample	Lithologic Description
			Surface organics (grass) over Topsoil
			Silty CLAY (Fill); light brown, slightly moist, trace organics, medium stiff.
5			SILT; gray, dry, with trace fine-grained sand, medium stiff.
			SAND with silt; light brown, dry, loose.
10			SAND with gravel; light brown, dry, medium dense.
			Becomes grayish-brown.
15			Poorly-graded fine SAND with silt; light brown, dry, medium dense.
20			Well-graded, sub-rounded to angular GRAVEL/COBBLES; gray, dry, with trace silt, very dense.
25			Boring Refusal at 24.5' BGS. No Groundwater or Seepage Encountered.
30			
35			

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Boring Number: **B-2**

Project Number: **2200-00**
Logged By: J. Mattecheck
Date: January 22, 2015
Site Conditions: --
Drilling Contractor: Dan J. Fisher Excavation
Drilling Equipment: Limited Access (Big Beaver)
Sampler Type: SSA
Depth to Water (ATD): --
Surface Elevation: --

▲ Standard Penetration Resistance
(Blows per Foot)
10 20 30 40

Depth, feet	Sample ID	Sample	Lithologic Description
			Surface organics (grass) over Topsoil
			Silty CLAY (Fill); light brown, slightly moist, with trace organics, soft.
5		☒	SILT; gray, dry, with trace fine-grained sand, stiff.
10		☒	SAND; grayish-brown, dry, with trace silt, stiff.
			Drilling resistance due to gravel or other obstruction.
15		☒	SAND with gravel; light gray, dry, dense.
		☒	
20		☒	Well-graded sub-rounded to angular GRAVEL/COBBLES; light gray, dry, very dense.
		☒	
25			Boring Refusal at 24.0' BGS. No Groundwater or Seepage Encountered.
30			
35			

Letter from U.S. Army Corps of Engineers

otak®

HanmiGlobal Partner

From: Yballe, Dominic P NWP <Dominic.P.Yballe@usace.army.mil>
Sent: Thursday, June 18, 2015 9:20 AM
To: Melanie McCandless
Cc: 17347
Subject: RE: Placement of three additional logs at Johnson Creek Confluence (Corps. No. NWP-2009-25-1) (UNCLASSIFIED)

Follow Up Flag: Follow up
Flag Status: Completed

Classification: UNCLASSIFIED
Caveats: NONE

Good morning Melanie,

I reviewed your letter and the most recent permit verification. I wanted to clarify or confirm that both the removal of trees and the placement of woody debris will occur outside of the ordinary high water mark of either the Willamette River or Johnson Creek. I also wanted to confirm whether or not the placement is in wetlands.

If there is no discharge of dredge or fill material (including large wood) into waters of the US (including wetlands and tributaries), then a Section 404/10 permit from the US Army Corps of Engineers is not required.

Dominic Yballe
CENWP-OD-G
P.O. Box 2946
Portland, Oregon 97208-2946
http://www.nwp.usace.army.mil/Missions/Regulatory.aspx
Office: 503-808-4392
fax: 503-808-4375

Let us know how we're doing.
http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

-----Original Message-----
From: Holm, James A NWP
Sent: Thursday, June 18, 2015 8:59 AM
To: Melanie McCandless; Yballe, Dominic P NWP
Cc: 17347
Subject: RE: Placement of three additional logs at Johnson Creek Confluence (Corps. No. NWP-2009-25-1) (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Good morning Melanie,

I did receive your letter, but since I no longer work in the Regulatory Permit Branch, I delivered your letter to the current Regulatory permit Project Manager/Team Lead that covers the Clackamas County area, Mr. Dominic Yballe (503-808-4392). He will be able to help answer your permit question regarding the additional logs.

If you have questions on dredging projects in rivers, streams, lakes, or bays, I'd be able to help answer those technical and sediment quality questions.

Have a great rest of the week,
James

James A. Holm
Sediment Quality, Engineering and Construction U.S. Army Corps of Engineers - Portland District
503-808-4963
james.a.holm@usace.army.mil

-----Original Message-----
From: Melanie McCandless [mailto:melanie.mccandless@otak.com]
Sent: Thursday, June 18, 2015 8:47 AM
To: Holm, James A NWP
Cc: 17347
Subject: [EXTERNAL] Placement of three additional logs at Johnson Creek Confluence (Corps. No. NWP-2009-25-1)

Good morning Mr. Holm,

Last week you should have received a letter from me (attached) inquiring about the placement of three additional logs at a habitat enhancement project at the confluence of Johnson Creek and the Willamette River. The project was constructed in 2011 under the nationwide permit no. 2009-25-1.

We are looking for a letter from you allowing the placement of three additional logs without opening a new permit. Is there a convenient time when I could call or meet to discuss this with you?

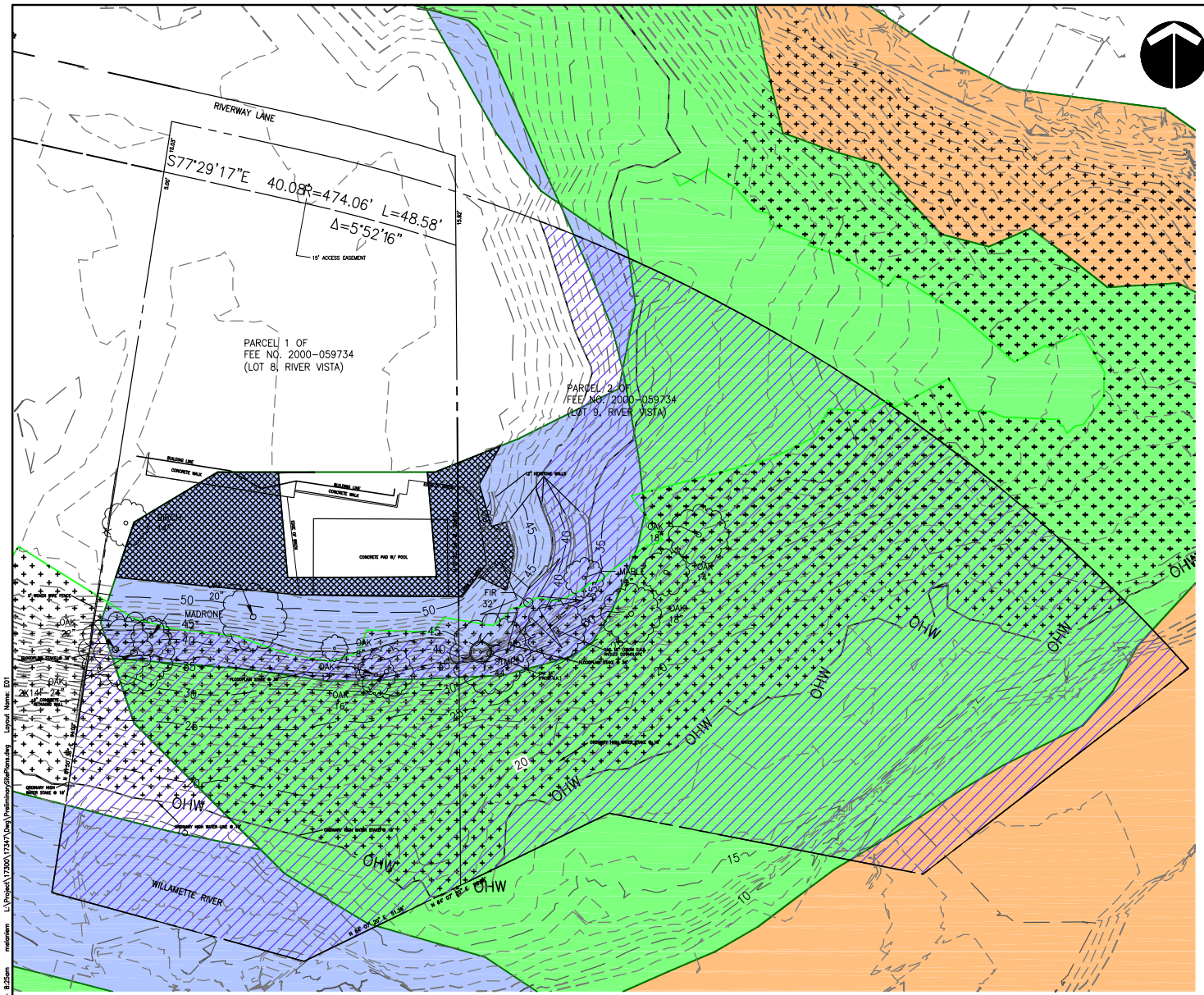
Thank you,

--Melanie C. McCandless

Scaled Site Plans

otak®

HanmiGlobal Partner



LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (5') – EXISTING
- MINOR CONTOUR (1') – EXISTING
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- HCA – LOW VALUE (FROM MILWAUKIE GIS)
- HCA – MODERATE VALUE (FROM MILWAUKIE GIS)
- HCA – HIGH VALUE (FROM MILWAUKIE GIS)
- WILLAMETTE GREENWAY VEGETATION BUFFER (TO ELEVATION 43 FT NAVD88, 25 FT UPLAND FROM OHW = 18 FT NAVD88)
- WATER QUALITY RESOURCE BUFFER (50 FT BUFFER FROM 2-YEAR FLOOD ELEVATION OF 18.2 FT NAVD88)
- AREA REMOVED FROM HABITAT CONSERVATION AREA (2,310 SF)

NATURAL RESOURCE OVERLAY DATA PROVIDED BY CITY OF MILWAUKIE PLANNING STAFF (APRIL 28, 2015). ORDINARY HIGH WATER IS ASSUMED TO BE AT ELEVATION 18.

THE 100-YEAR FLOOD ELEVATION IS ASSUMED TO BE ELEVATION 36 FROM THE EFFECTIVE FLOOD INSURANCE RATE MAP (MAP NUMBER 41005C0009D PANEL 9, ZONE A).

TOPOGRAPHIC SURVEY PERFORMED IN DECEMBER 2014 AND MAPPED IN JANUARY 2015. BASIS OF BEARINGS ARE GPS COORDINATES ORGN NAD83, 2011 EPOCH (2010). VERTICAL DATUM IS NAVD88.

TOPOGRAPHY BEYOND SURVEY LIMITS DERIVED FROM PUBLICLY-AVAILABLE LIDAR DATA (GIS).

Not for Construction
Preliminary Only

NO.	DATE	BY	REVISION COMMENTS	Date
				Initial Issue: February, 2015
Design: MCM	Drawn: MCM	Checked: KJT		

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION

Existing Conditions

otak
Hammi Ciocci Partner
808 SW 3rd Ave., Suite 300
Portland, OR 97204
Phone: (503) 287-0825
Fax: (503) 415-2304
www.otak.com

17347
Project No. Drawing No.
E01
Sheet No.

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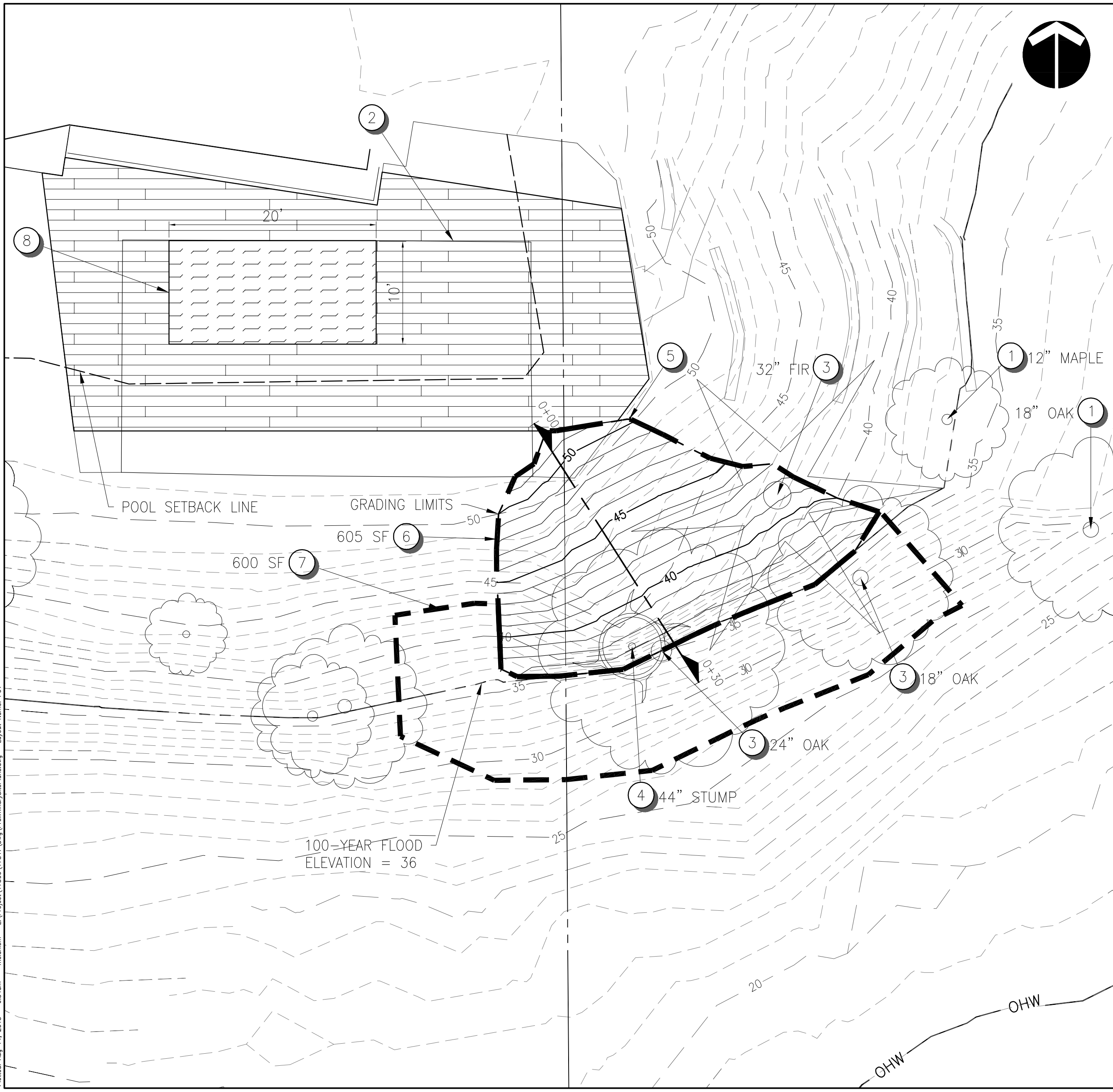

LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (5') - EXISTING
- MINOR CONTOUR (1') - EXISTING
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- SECTION LINE
- MAJOR CONTOUR (5)' - PROPOSED
- MINOR CONTOUR (1') - PROPOSED
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- EXISTING POOL
- EXISTING BRICK PATIO
- PROPOSED DECK (APPROX.)
- PROPOSED POOL (APPROX.)
- PERMANENT DISTURBANCE MITIGATION AREA
- BUFFER ENHANCEMENT AREA

CONSTRUCTION NOTES

1. PROTECT EXISTING NATIVE VEGETATION BEYOND GRADING LIMITS (SEE EROSION CONTROL PLAN).
2. REMOVE EXISTING POOL AND BRICK PATIO
3. REMOVE EXISTING TREE
4. REMOVE STUMP
5. GRADE AT APPROX. 1.5H:1V SLOPE, MATCHING EXISTING GROUND AT GRADING LIMITS (SEE SECTION). APPROXIMATELY 45 CY CUT.
6. PLANT NATIVE TREES, SHRUBS AND GROUNDCOVERS (SEE MITIGATION PLAN).
7. PLANT NATIVE TREES AND SHRUBS AND (SEE MITIGATION PLAN).
8. CONSTRUCT WOOD DECK AND POOL

10' 0' 10' 20'

SCALE IN FEET

Not for Construction
Preliminary Only

KLEIN PROPERTY SLOPE STABILIZATION

Preliminary Site Plan

NOT FOR CONSTRUCTION

NO.	DATE	BY	REVISION COMMENTS

Design	Drawn	Checked	Date
MCM	MCM	KJT	Initial Issue Date: February, 2015

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808 SW 3RD Ave, Suite 300
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Fax: (503) 415-2304
www.otak.com

17347
Project No. Drawing No.
P01
Sheet No.

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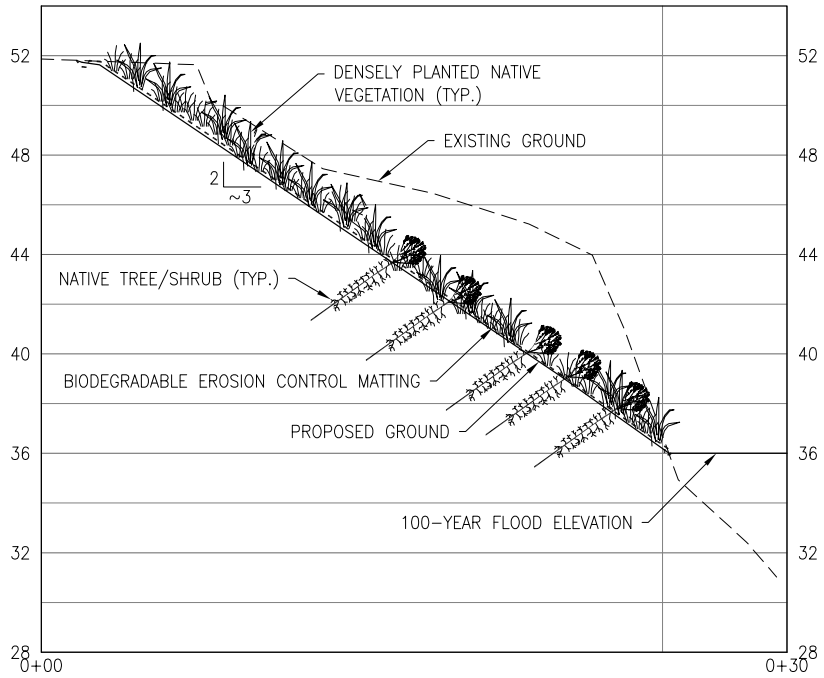

SECTION VIEW
NO VERTICAL EXAGGERATION

GENERAL NOTES:

A. AREAS BEYOND GRADING LIMITS SHALL BE PROTECTED FROM DISTURBANCE.

B. GRADED SLOPE SHALL BE PROTECTED WITH BIODEGRADABLE EROSION CONTROL MATTING.

C. GRADED SLOPE SHALL BE RESTORED WITH NATIVE VEGETATION.

5' 0' 5' 10'
SCALE IN FEET

Not for Construction
Preliminary Only

NOT FOR CONSTRUCTION

NO.	DATE	BY	REVISION COMMENTS

Design MCM
Drawn MCM
Checked KJT
Date February, 2015
Initial Issue Date:

KLEIN PROPERTY SLOPE STABILIZATION

Preliminary Typical Section

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17347
Project No. Drawing No.
P02
Sheet No.

Plotted: Aug 14, 2015 – 6:56am mstoniem L:\Project\17300\17347\Dwg\Preliminary\SitePlans.dwg Layout Name: P02

Memorandum

otak
HanmiGlobal Partner
808 SW 3rd Avenue
Suite 300
Portland, OR 97204
Phone (503) 287-6825
Fax (503) 415-2304

To: Gary Klein

From: Melanie C. McCandless

Copies: Kevin Timmins, File

Date: Revised: August 14, 2015

Subject: Klein Property Impact Evaluation and Alternatives Analysis

Project No.: 17347.A

Introduction

This memo addresses the General Discretionary Review standards in Milwaukie Municipal Code (MMC) Subsection 19.402.12 for the proposed pool removal and slope stabilization work at the Klein Property, 10795 SE Riverway Lane. The project impacts habitat conservation area (HCA) designated as low-quality per the revised Title 13 GIS data provided by the City of Milwaukie, water quality resources (WQRs), and is within the Willamette Greenway Vegetative Buffer (see attached Figure 1: Natural Resource Overlays).

Qualifications of Natural Resource Professionals

Melanie McCandless, EI has degrees in geological sciences, environmental studies, and environmental engineering. She has over five years' experience in natural resource management and restoration design including wetland delineation, plant identification, hydrologic and hydraulic monitoring and modeling, erosion and sediment control design, and grading plan preparation. Melanie prepared this memo and accompanying figures with the exceptions of Figure 2 (provided by City of Milwaukie) and Figure A (prepared by Gary Wolff).

Kevin Timmins, PE is the senior reviewer of Melanie's work and has over fifteen years' experience in civil engineering and natural system design. Kevin is the principal in charge of this project.

Gary Wolff, PE assisted with the determination of the 2-year recurrence interval flood elevation. He is the senior hydraulics engineer at Otak with over twenty years of experience in open channel hydraulics and floodplain management.

Bob Hawes, Survey Party Chief with 35 years of field experience, led the field crew in the on-site topographic mapping and boundary verification tasks. Rob Graham, LSIT, has 41 years of land surveying experiences, beginning with a BS in Geography. Rob did the data reduction, computations, and drafting for the base map.

Stuart Albright, PE prepared the geotechnical support letters attached to this submittal. Stuart is a senior geotechnical engineer with over twenty years' experience in slope stabilization including pool decommissioning projects.

Boundary Verification

Habitat Conservation Area – Boundary Verification Type I

There is a simple incongruity between the existing pool, brick patio and landscaped yard and the mapped HCA. Part of the developed area has been mapped as low-value HCA despite city efforts to map the features by aerial photo (see attached Figure 2: NR Administrative map section). The topographic survey performed shows that 2,310 square feet of the HCA is actually within the existing pool, brick patio, and landscaped yard (see attached Figure 3: HCA Boundary Verification). The HCA overlay should be removed from this area (2,310 square feet) and impact calculations below assume their removal. The existing pool and brick patio shall be removed and replaced with a smaller pool and wooden deck. The landscaped yard area will be used for construction staging. These disturbances are entirely within the footprint of the existing pool, patio and landscaped area and do not constitute a disturbance of the HCA as remapped. Table 1 summarizes the HCA overlays on the Klein Property as remapped.

Table 1: Klein Property HCA Overlay Details	
Overlay Type	Area (square feet)
High Value HCA	1,178
Moderate Value HCA	24,962
Low Value HCA	8,058
Total with HCA	**34,198**
Total without HCA	**16,796**

Water Quality Resource

The location of the WQR buffer was calculated per MMC Table 19.402.15. The Willamette River is a primary protected water feature and the 2-year recurrence interval flood elevation was chosen as the starting point for the WQR measurement. The 2-year Willamette River water-surface elevation was estimated using available flood profiles obtained from the Effective Flood Insurance Study (FIS) (Federal Emergency Management Agency, 2008). Because the FIS does not include water-surface elevations below the 10-year event, the 2-year elevation was estimated by extrapolation from the available profiles (10-year, 50-year, 100-year, and 500-year). This was done by creating an elevation versus probability plot from the available profiles. As the data showed a linear relationship using a log-probability plot, this was used for the extrapolation per standard engineering practices. The estimated 2-year flood elevation at the Klein property is 18.2 feet NAVD. The plot is shown in Figure A.

The slope adjacent to the 2-year recurrence interval flood is less than 25%, and per MMC Table 19.402.15 a 50-foot buffer was applied to determine the extent of the vegetated corridor. The

corridor width is a horizontal offset from elevation 18.2 on the existing topography as shown on the attached Figure 1: Natural Resource Overlays.

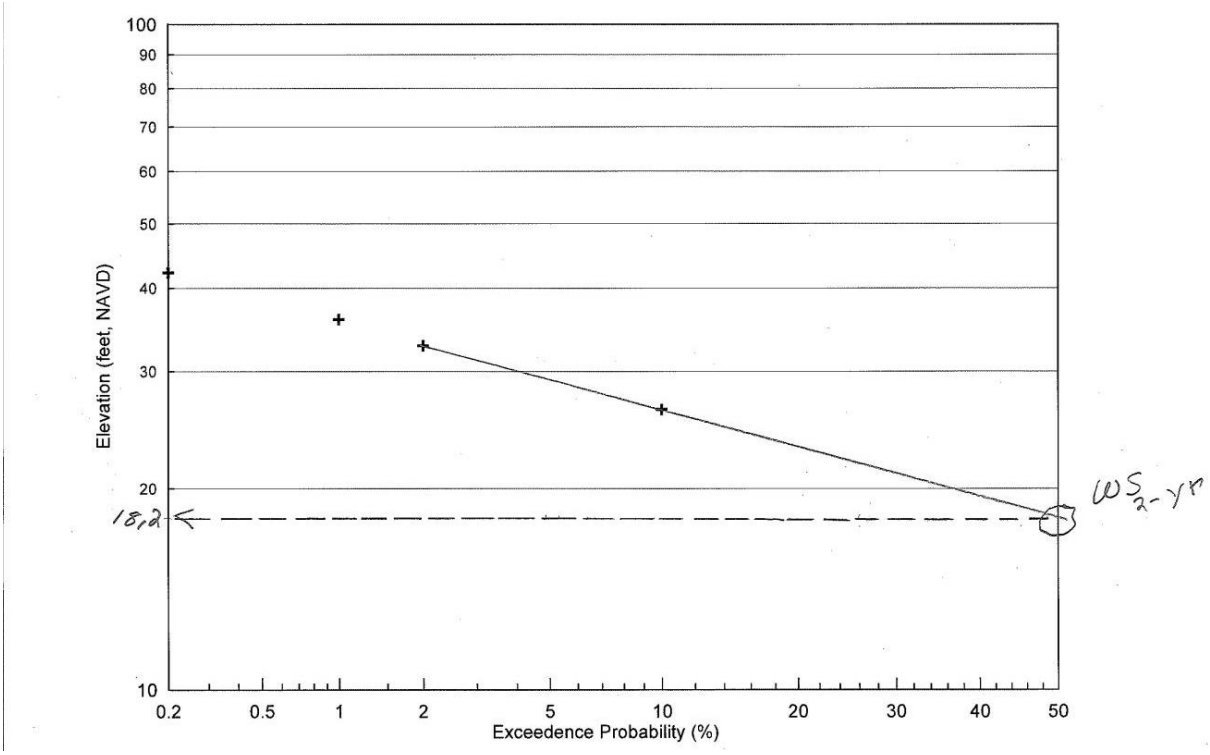


Figure A: Water surface probability plot and 2-year recurrence interval flood elevation.

Impact Calculation

HCA

The permanent impact is due to the tree removal and grade change of the oversteepened slope. The ground will be recontoured to match the existing slopes and reduce the risk of slope failure. The recontoured slope will be stabilized with biodegradeable erosion control matting and native vegetation (for details, see the Klein Property Erosion Control Plan, under separate cover).

The temporary impacts along the access road will include machinery access for the grading and tree removal work. The road is along the western bank of Johnson Creek above ordinary high water. The impact calculations conservatively assume a ten-foot access road width and the actual disturbance footprint may be smaller depending on the machinery used. This road was used to access the site during the 2011 confluence restoration project (Land Use File # WQR-11-01) and was stabilized with an erosion control seed mix after the work was completed.

The road entrance on the neighboring property is maintained by PGE for access to the transmission lines and the roadway is graveled (see Picture 1). On the Klein property, the roadway has overgrown with grasses (see Picture 2).

Picture 1: Existing access road on neighboring property. Maintained gravel base with limited vegetation growth.

Picture 2: Existing access road on Klein property. Overgrown with grasses. Adjacent trees will be protected from disturbance.

During this work, limited clearing may be necessary along the road but no trees are expected to be removed. Native vegetation beyond the road limits will be protected from disturbance (see Klein Property Construction Management Plan, under separate cover).

The proposed work permanently impacts 1.7% of the 34,198 square feet of total HCA overlay on the Klein property and temporary impacts 6.6% (see Figure 4: HCA Impact Areas and Tables 1 and 2 for details).

Table 2: HCA Impact Details	
Project Element	Area (square feet)
Permanent Impact (Slope Stabilization)	578
Temporary Impact (Access)	2,255
Total HCA Impact	**2,833**

Per MMC Figure 19.402.11.D.1.a, general discretionary review is required for work impacting the HCA on the Klein property since the project impact of 2,833 square feet exceeds the allowable disturbance of -11,796 square feet (see calculation below and Tables 1 and 2).

X = 5,000 sq. ft. (50% of HCA exceeds the maximum of 5,000)

Y = 16,796 sq. ft. outside of HCA

Z = -11,796 sq. ft. (5,000 – 16,796) allowable HCA disturbance

WQR

The WQR vegetated corridor is permanently impacted by 351 square feet of the slope stabilization and temporarily impacted by 2,255 square feet of the access road (see attached Figure 5: WQR Impacts). The WQR disturbance areas are entirely within the HCA disturbance areas and will be mitigated and restored per the Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer Plan (under separate cover).

Impact Evaluation

Ecological Functions

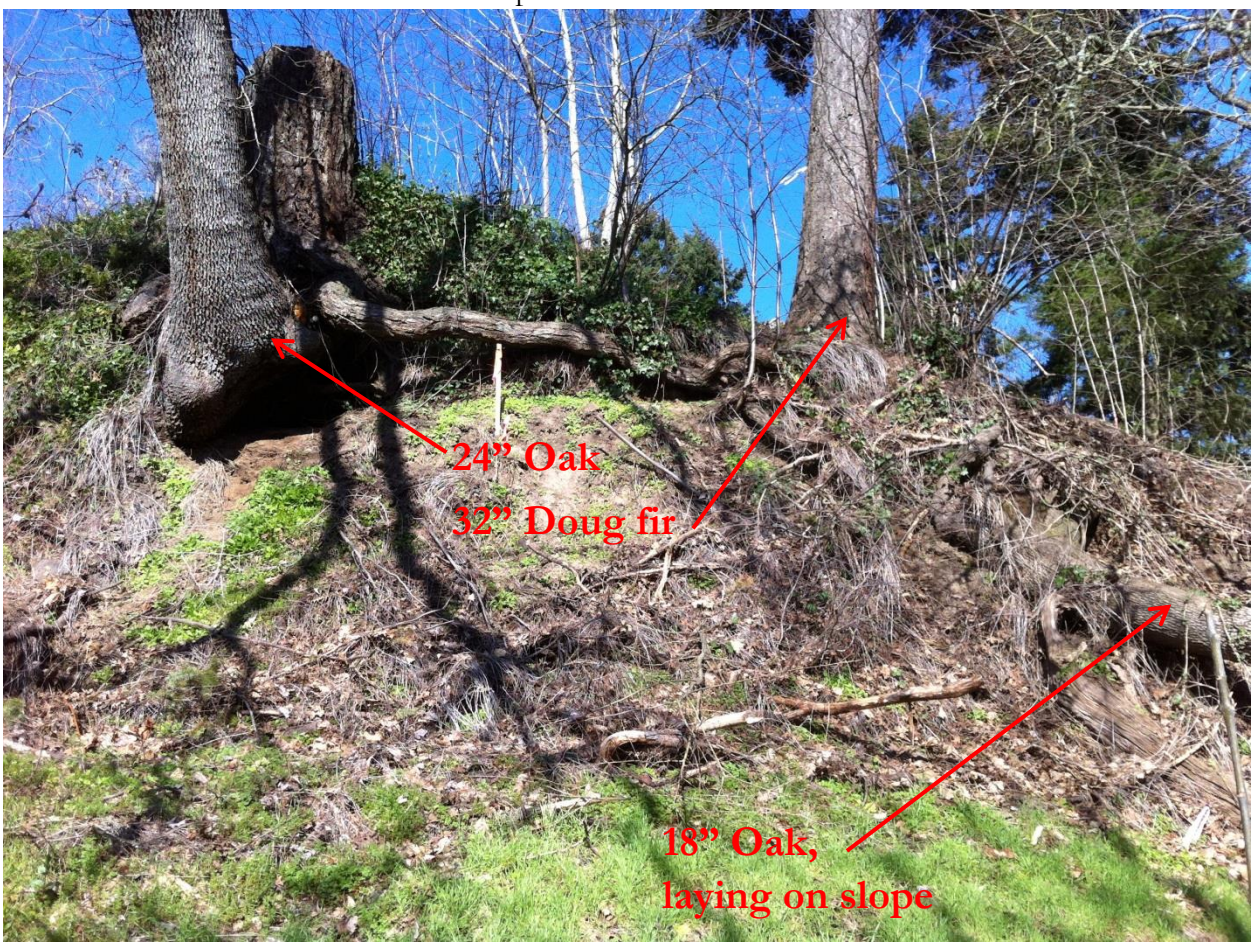
MMC Subsection 19.402.12.A.1 refers to the ecological functions listed in MMC Subsection 19.401.12.1.C.2. Each of these functions is discussed below in relation to the oversteepened slope grading area.

a. Vegetated corridors to separate protected water features from development
    - The corridor does act to separate the development from the Creek and the River though the steep slope is more of a deterrent.
    - Currently, the oversteepened slope is supporting little native vegetation.
    - Three large trees at the top of the slope are leaning down-slope (18" Oak, 24" Oak, and 32" Douglas fir) and there is a low shrub layer under the trees including a heavy coverage of invasive English ivy (see Picture 3).
b. Microclimate and shade
    - The existing trees provide shade though their location upslope may limit the benefit to the Creek and River.
    - The development of a microclimate is limited by the lack of understory shrubs.
c. Streamflow moderation and water storage
    - The oversteepened slope provides little flow attenuation.
    - The oversteepened slope provides little water storage.
d. Water filtration, infiltration, and natural purification
    - The tree canopy may intercept some rainfall.
    - The oversteepened slope provides little infiltration or filtration.
e. Bank stabilization and sediment and pollution control

- The oversteepened bank is at risk of erosion and introducing sediment to the Creek and River.
- The proposed conditions will reduce the risk of sediment loading.

f. Large wood recruitment and retention and natural channel dynamics
- The existing trees are in the process of being recruited by the River.
- The recruitment of these trees by natural processes will likely involve slope failure and sediment input to the Creek and River.

g. Organic material resources
- The oversteepened slope is likely providing organic material resources due to the continued erosion and slope failure.



Picture 3: Existing vegetation on oversteepened slope. Note the Oak trees leaning downslope and the English ivy at the top of slope.

Vegetation Inventory

The condition of the vegetation in the WQR vegetated corridor provides marginal conditions for water quality and wildlife habitat. Per Table 19.402.11.C it would be considered Class B ("Marginal") due to the lack of groundcover and exposed soil areas. The 18" Oak tree is laying down

the slope and providing no canopy cover benefit to the slope.

Water Quality Impacts

The proposed project has the potential to improve water quality on the site especially sediment loading. The impacts to nutrient loading and temperature are neutral or slightly beneficial.

The poorly vegetated oversteepened slope is eroding and contributing sediment to the Creek and River. The grading plan will soften the slope, matching existing ground to either side, and densely replant it with native species. Temporary erosion control measures will be in place to stabilize the slope until the vegetation becomes established.

The proposed work is unlikely to change the nutrient loading of the site though the reduction in sediment transport may reduce nutrient transport if any fertilizers are sorbed to the sediment.

There may be a short-term detrimental impact to temperature due to the tree removal required for the grading. Removing these trees will open up the canopy and increase the potential solar heat loading. However, the long-term canopy cover and shade will be as good as or better than the existing tree cover since one of the oak trees is laying down the slope and providing no effective shade.

Alternatives Analysis

The proposed alternative was selected to prevent detrimental impacts to the Creek and River. The existing pool is at risk of causing slope failure and sliding down toward the Willamette (see "Geotechnical Site Investigation" letter, attached to application narrative). Removing the pool, replacing the brick patio with a wooden deck, and constructing a smaller pool set back from the slope will relieve pressures contributing to slope failure (see "Swimming Pool Demolition" letter, attached to application narrative). Grading the area of oversteepened slope at the point to match existing ground will also reduce the sediment input to the Creek and River.

No Impact

The no-impact alternative would entail leaving the existing pool in place. No immediate detrimental impacts to the natural resources are incurred by this alternative but it does not address the risk of slope failure and pool movement. Additionally, the area of oversteepened slope will continue to provide little water quality and habitat benefits and the trees will continue to move downslope.

Minimal Impact

The current proposal to remove the pool and regrade the oversteepened slope is the minimal-impact alternative to prevent further slope failure and pool movement. Other alternatives considered included:

- Retaining pool and holding back slope
    - Micropile structural wall – drive micropiles below bottom of pool, excavate slope to install horizontal tie-backs below pool, then rebuild vegetated slope

  - Rock buttress with geogrid – build rock buttress from toe of slope to 100-year flood elevation, then rebuild vegetated slope
- Removing pool and regrading entire slope – remove existing vegetation from slope and regrade from toe of slope at shallow 2 (horizontal): 1 (vertical) slope

Both alternatives to retain the pool would require disturbing large areas of the HCA facing the River and additional tree removal. The pool removal alternative with regrading the entire slope would require a much larger area of impact than grading just the oversteepened slope section. Details of these alternatives are discussed in the attached Slope Stabilization Alternatives memo dated September 2014. The currently-selected alternative was not included in that initial analysis but was developed as a refinement of the laidback slope alternative, recognizing the detrimental impacts of grading from the toe of the slope.

Approval Criteria

This section discussed the project compliance with the Approval Criteria in MMC Subsection 19.402.12.B.

Avoid

The proposed alternative has less detrimental impact than other practicable alternatives, including the no-action alternative of leaving the pool and oversteepened slope in place. The risk of additional slope failure and pool movement from the no-action alternative is greater than the temporary negative impact of this work. No permanent development structures are proposed within the HCA except those occurring within the footprint of the existing pool and brick patio.

Minimize

Per Subsection 19.402.11.A, the following measures shall be in place to protect natural resources during project implementation:

1. Work areas shall be marked with high-visibility fence
2. Trees shall not be used as anchors for stabilizing construction equipment
3. Native soils disturbed shall be conserved on the property.
4. An Erosion and Sediment Control Plan has been prepared (under separate cover)
5. Site preparation and construction practices shall prevent drainage of hazardous materials, erosion, pollution or sedimentation to the River and the Creek
6. Stormwater flows to the River and Creek shall not exceed pre-project flows; the rate of runoff may be slower compared to the oversteepened slope.
7. The HCA to remain undeveloped shall be marked and remain undisturbed. The markings shall be maintained until construction is complete.

Note: *no future development phases are anticipated and no lights are proposed, thus making Subsections 19.402.11.A.8 and 19.402.11.A.9 irrelevant.*

10. All work shall conform to a Construction Management Plan prepared according to Subsection 19.402.9 (under separate cover).

The proposed activity minimizes to the extent practicable the impacts on the following resources:

- Adverse hydrological impacts to water resources – the slope grading will slow runoff and reduce sediment input to the Creek and River
- Wildlife corridors and fish passage – no changes to fish passage are expected from this project; temporary detrimental impacts to the wildlife corridor will be restored when the slope is revegetated

Areas beyond the grading limits shall be restored by removing invasive species and installing native plants, per the Mitigation Plan (under separate cover).

Mitigate

The Approval criteria of Subsection 19.402.12.B.1.c are addressed in the Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer plan (under separate cover).

Attachments

Figure 1: Natural Resources Overlays on Property

Figure 2: NR Administrative Map

Figure 3: HCA Boundary Verification

Figure 4: HCA Impact Areas

Figure 5: WQR Impact Area

Slope Stabilization Alternatives Memo dated September 2014

References

Federal Emergency Management Agency, 2008. Flood Insurance Study, Clackamas County, Oregon and Incorporated Areas, June 17.

RIVERWAY LANE

BUILDING LINE
CONCRETE WALK
BUILDING LINE
CONCRETE WALK
EDGE OF BRICK
EDGE OF BRICK
CONCRETE PAD W/ POOL
EDGE OF BRICK
12" KEYSTONE WALLS
6' WOOD FIRE FENCE
6' CONCRETE RETAINING WALL

50
50
40
40
30
30
20
20
10
10

OHW
OHW
OHW
OHW
OHW
OHW
OHW
OHW

WILLAMETTE RIVER

LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (5') – EXISTING
- MINOR CONTOUR (1') – EXISTING
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- HCA – LOW VALUE (FROM MILWAUKIE GIS)
- HCA – MODERATE VALUE (FROM MILWAUKIE GIS)
- HCA – HIGH VALUE (FROM MILWAUKIE GIS)
- WILLAMETTE GREENWAY VEGETATION BUFFER (TO ELEVATION 43 FT NAVD88, 25 FT UPLAND FROM OHW = 18 FT NAVD88)
- WATER QUALITY RESOURCE BUFFER (50 FT BUFFER FROM 2-YEAR FLOOD ELEVATION OF 18.2 FT NAVD88)

30' 0' 30' 60'
SCALE IN FEET

Not for Construction
Preliminary Only

NO.	DATE	BY	REVISION COMMENTS	Date
	Design	MCM		Initial Issue Date:
	Drawn	MCM		February, 2015
	Checked	KJT		

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION

Existing Natural Resource Overlays

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17347
Project No. Drawing No.
Figure 1
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Figure 2: NR Administrative Map

Site Map
10795 SE Riverway Lane

Legend

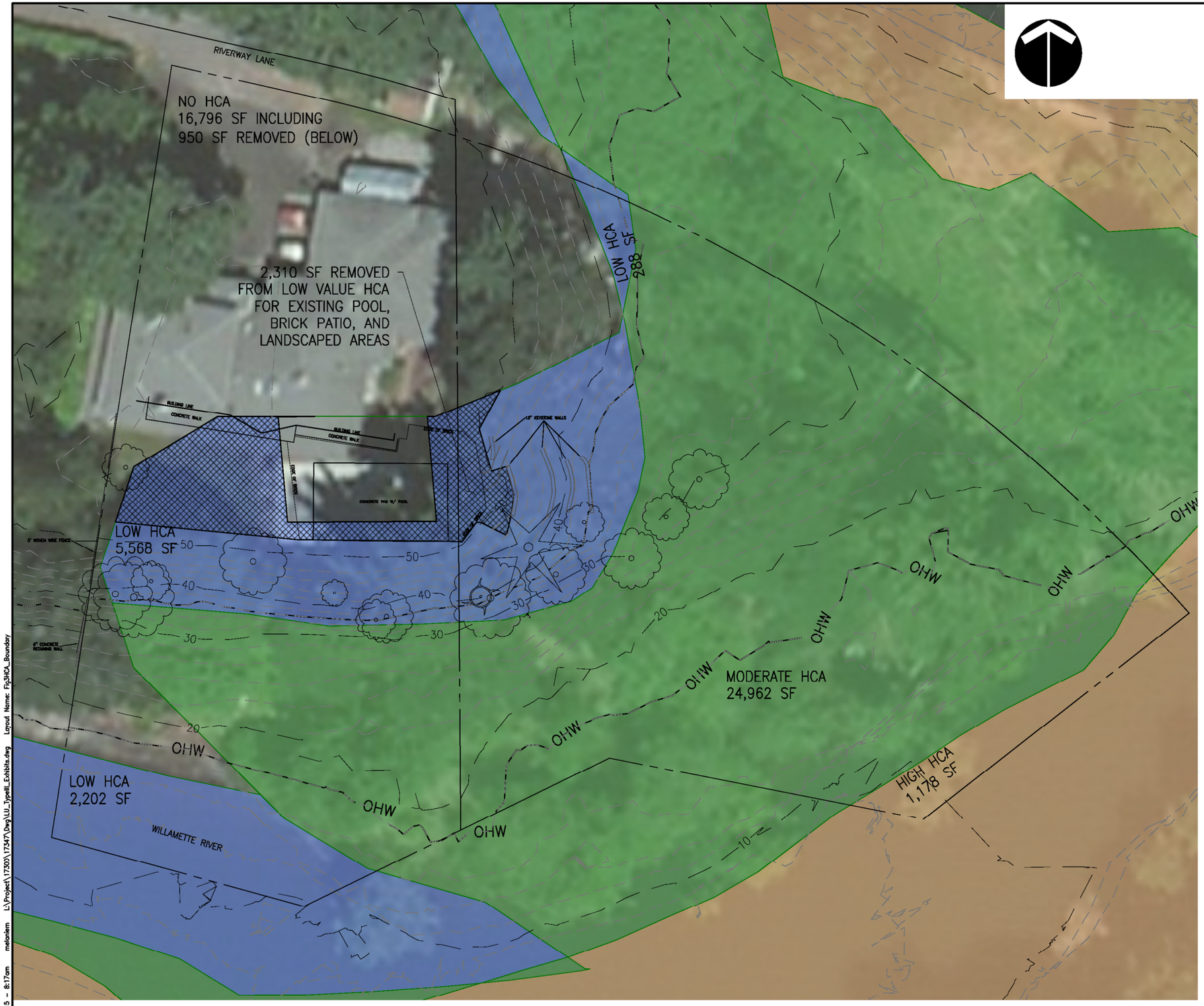
Tax lot boundaries

HCA

Milwaukie Planning Dept.
Data: City of Milwaukie GIS; Metro RLIS
Date: 7/30/2015
Author: Planning Staff

1 inch = 45 feet

0 5 10 20 30 40 Feet



LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (5') – EXISTING
- MINOR CONTOUR (1') – EXISTING
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- HCA – LOW VALUE (FROM MILWAUKIE GIS)
- HCA – MODERATE VALUE (FROM MILWAUKIE GIS)
- HCA – HIGH VALUE (FROM MILWAUKIE GIS)
- AREA TO BE REMOVED FROM HABITAT CONSERVATION AREA

2,310 SF OF LOW-VALUE HCA TO BE REMAPPED WITHOUT HCA DUE TO EXISTING POOL, BRICK PATIO AND LANDSCAPED AREAS.

AERIAL PHOTO FROM BING STREAMING IMAGERY (SOURCE: ESRI) – NOTE THAT PHOTO IS MISALIGNED FROM SITE TOPOGRAPHIC SURVEY.

TOPOGRAPHIC SURVEY PERFORMED IN DECEMBER 2014 AND MAPPED IN JANUARY 2015. BASIS OF BEARINGS IS GPS COORDINATES ORGN NAD83, 2011 EPOCH (2010). VERTICAL DATUM IS NAVD88.

TOPOGRAPHY BEYOND SURVEY LIMITS DERIVED FROM PUBLICLY-AVAILABLE LIDAR DATA (GIS).

30' 0' 30' 60'
SCALE IN FEET

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Preliminary Only

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM		Initial Issue	February, 2015
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Checked	KJT			

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KLEIN PROPERTY SLOPE STABILIZATION

HCA Boundary Verification

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Figure 3
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2,310 SF REMOVED FROM LOW VALUE HCA FOR EXISTING POOL, BRICK PATIO, AND LANDSCAPED AREAS

BUILDING LINE
CONCRETE WALK
EDGE OF ROOF
EDGE OF ROOF
CONCRETE PAD W/ POOL
12" KEYSTONE WALLS
PERMANENT IMPACT 578 SF
3 32" FIR
1 12" MAPLE
1 18" OAK
3 18" OAK
3 24" OAK
4 44" STUMP
OHW
TEMPORARY IMPACT (ACCESS ROAD) 2,255 SF

LEGEND

- PROPERTY LINE
- EXIST. MAJOR CONTOUR (5')
- EXIST. MINOR CONTOUR (1')
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- PROP. MAJOR CONTOUR (5')
- PROP. MINOR CONTOUR (1')
- GRADING LIMITS

EXISTING TREE (DECIDUOUS)

EXISTING TREE (CONIFEROUS)

HCA – LOW VALUE (FROM MILWAUKIE GIS)

HCA – MODERATE VALUE (FROM MILWAUKIE GIS)

AREA TO BE REMOVED FROM HABITAT CONSERVATION AREA

CONSTRUCTION NOTES

1. PROTECT EXISTING NATIVE VEGETATION BEYOND GRADING LIMITS
2. REMOVE EXISTING POOL AND PATIO
3. REMOVE EXISTING TREE
4. REMOVE STUMP
5. GRADE AT APPROX. 1.5H:1V SLOPE, MATCHING EXISTING GROUND AT GRADING LIMITS. STABILIZE WITH NATIVE VEGETATION.
6. CONSTRUCT POOL AND WOOD DECK

20' 0' 20' 40'
SCALE IN FEET

Not for Construction
Preliminary Only

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM		Initial Issue	February, 2015
Drawn	MCM			
Checked	KJT			

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION

Preliminary HCA Impacts

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17347
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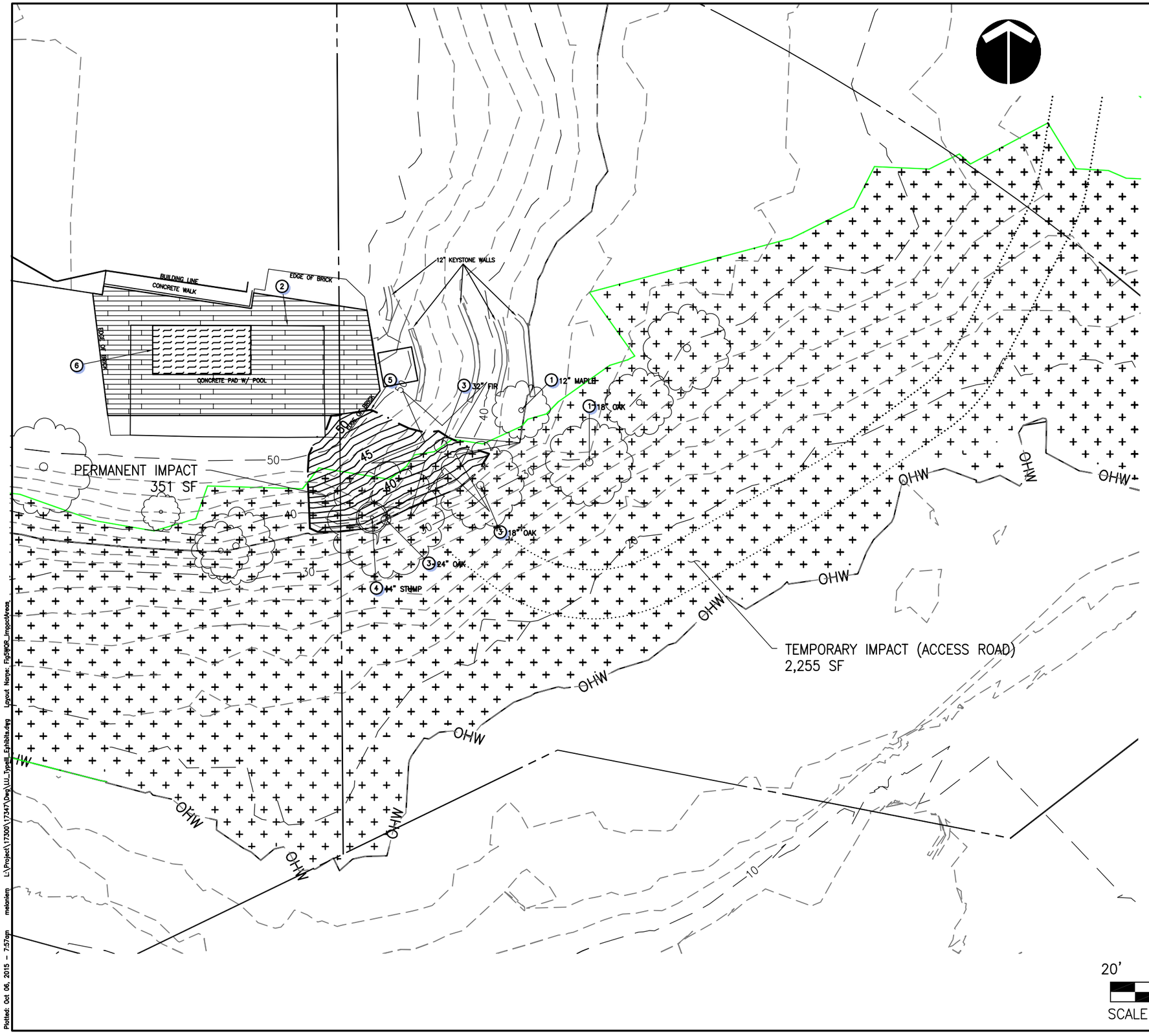

LEGEND

- PROPERTY LINE
- EXIST. MAJOR CONTOUR (5')
- EXIST. MINOR CONTOUR (1')
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- PROP. MAJOR CONTOUR (5')
- PROP. MINOR CONTOUR (1')
- GRADING LIMITS

EXISTING TREE (DECIDUOUS)

EXISTING TREE (CONIFEROUS)

WATER QUALITY RESOURCE BUFFER (50 FT BUFFER FROM 2-YEAR FLOOD ELEVATION OF 18.2 FT NAVD88)

CONSTRUCTION NOTES

1. PROTECT EXISTING NATIVE VEGETATION BEYOND GRADING LIMITS
2. REMOVE EXISTING POOL AND PATIO
3. REMOVE EXISTING TREE
4. REMOVE STUMP
5. GRADE AT APPROX. 1.5H:1V SLOPE, MATCHING EXISTING GROUND AT GRADING LIMITS. STABILIZE WITH NATIVE VEGETATION.
6. CONSTRUCT POOL AND WOOD DECK

20' 0' 20' 40'
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Design	MCM			Initial Issue Date:
Drawn	MCM			February, 2015
Checked	KJT			

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KLEIN PROPERTY SLOPE STABILIZATION

WQR Impacts

Not for Construction
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Figure 5
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Memorandum

808 SW 3rd Avenue
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Fax (503) 415-2304

To:	Gary Klein
From:	Kevin Timmins, Melanie McCandless (Otak); Stu Albright (Apex)
Copies:	File
Date:	September 19, 2014
Subject:	Slope Stabilization Alternatives
Project No.:	17347

This memo addresses various design options for slope stabilization at Gary and Sharon Klein's property in Milwaukie, Oregon. Bank failure facing the Willamette River is threatening the stability of the Kleins' swimming pool and deck. The existing slope is oversteepened in sections with poor vegetative cover as observed during a site visit in July 2014. Large trees across the top of the slope further contribute to the concerns over slope stability. The slope has retreated approximately five feet during the sixty years Mr. Klein has been in residence. He has observed more rapid bank retreat at a neighbor's property to the northwest.

Existing Conditions

Site observations indicated that the primary cause of the slope failure is geotechnical rather than hydraulic. Mass wasting occurs near the top of the slope and is temporarily stabilizing by material deposited at the toe. Hydraulic forces remove the toe material and the mass wasting continues. Stabilization alternatives need to be geotechnical.

Code Constraints and Permitting

The Kleins' property is zoned single-family residential with several environmental overlays. The overlays include:

- Willamette Greenway (WG): covers the entire parcel and the other overlays have partial coverage (see attached maps). WG requires a vegetation buffer plan between the river and twenty-five feet upland from the Ordinary High Water (OHW) line.
- Habitat Conservation Area (HCA): requires review for any disturbances greater than 500 square feet within it.
- Water Quality Resource Area (WQRA): requires review for any disturbance greater than 150 square feet within it.

- Special Flood Area: Work within the Special Flood Area requires a development permit, balanced cut and fill for displacement greater than ten cubic yards, and no net fill in the floodplain.

Additional information about the code constraints is attached.

Slope Stabilization Alternatives

The alternatives considered for the slope stabilization include the use of micropiles, a rock buttress reinforced with geogrid, and a gentler slope built from soil lifts wrapped in biodegradable matting. All of the alternatives exceed the impact thresholds for the HCA and WQRA and would require review by the Planning Commission. The alternatives are described in detail below and summarized in Table 1. Preliminary plans and Preliminary Cost Estimates are attached.

Micropiles

The Micropiles alternative will reinforce the top of the slope with micropiles and includes rebuilding the disturbed area with soil lifts and vegetation. The pool and deck will be preserved. Micropiles are 6" to 8" diameter columns driven 30' into the soil with 20' lateral ties back into the slope. The lateral tiebacks are anchored in a concrete wall and provide the resistance to slope failure. The area for the lateral tiebacks must be excavated for installation. The slope disturbed by installation would be rebuilt with soil lifts at a 1.5H:1V slope. Continued erosion may expose the micropile wall and additional concrete wall and lateral tiebacks could constructed. The approximate construction cost of this alternative is $306,010.

The Micropile alternative has the smallest construction footprint and occurs entirely above the 100-year flood elevation. Photos of a micropile installation are given below.

Photo 1: Micropile wall during construction. The wire mesh and fabric reinforce the concrete wall between the piles.

Photo 2: Micropile wall installed. Slope has not been reconstructed.

Photo 3: Micropile wall after slope reconstruction. Vegetation has not yet been installed.

Rock Buttress

The Rock Buttress alternative would rebuild the oversteepened slope at 1.5H:1V with a rock buttress reinforced with geogrid. This alternative would preserve the deck and pool. The rock slope is unlikely to support vegetation. Due to the environmental overlays, this alternative may be difficult to permit. The approximate construction cost of this alternative is $142,690.

The rock buttress occurs within the 100-year floodplain but could be designed such that no net fill occurs. Photos of a rock slope installation along a stream in Clark County, WA are given below.

Photo 4: Rock slope stabilization with logs and planting at toe in Clark County, WA. The blue tubes are browse protection for the installed plants.

Photo 5: Rock slope stabilization with logs and planting at toe in Clark County, WA. The blue tubes are browse protection for the installed plants.

Laidback Slope

The Laidback Slope alternative would rebuild the oversteepened slope at a stable 2H:1V slope incorporating vegetation throughout. This alternative would require the removal of the pool and deck. The slope would fully support vegetation and has no net fill within the 100-year floodplain. The approximate construction cost of this alternative is $79,070.

Table 1: Slope Stabilization Alternative Comparison			
Metric / Alternative	Micropiles	Rock Buttress	Laidback Slope
Protects Pool (Yes/No)	Yes	Yes	No
Supports Vegetation (Yes/No)	Yes – disturbed slope revegetated	No	Yes – entire slope vegetated
Large Tree Removal	Yes at edge of lawn	Yes, along entire slope	Yes, along entire slope
Estimated Construction Cost	$306,010	$142,690	$79,070

HOUSE

PRESERVE POOL AND DECK

POOL AND DECK

GRADING LIMITS

MICROPILE WALL

REBUILD SLOPE ALONG MICROPILE WALL

100-YEAR FLOOD ELEVATION = 36

APPROX. ORDINARY HIGH WATER ELEVATION = 18

OHW

50 45 40 35 30 25 20 15

LEGEND

- PROPERTY LINE
- EXIST. MAJOR CONTOUR (5')
- EXIST. MINOR CONTOUR (1')
- 100-YEAR FLOOD
- OHW — ORDINARY HIGH WATER
- PROP. MAJOR CONTOUR (5')
- PROP. MINOR CONTOUR (1')
- GRADING LIMITS
- MICROPILE WALL

NOTES

1. REMOVE EXISTING VEGETATION ON SLOPE.
2. INSTALL MICROPILE WALL. EXCAVATE SLOPE TO INSTALL LATERAL TIE-BACKS (SEE SECTION ON SHEET M02).
3. CONSTRUCT SOIL LIFTS IN FRONT OF MICROPILE WALL (SEE SECTION ON SHEET M02).
4. INSTALL PLANTS AND SEEDING.

20' 0' 20' 40'

SCALE IN FEET

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM			Initial Issue Date:
Drawn	MCM			August 13, 2014
Checked	KJT			

NOT FOR CONSTRUCTION

Not for Construction
Preliminary Only

KLEIN BANK STABILIZATION
Mr. Gary Klein

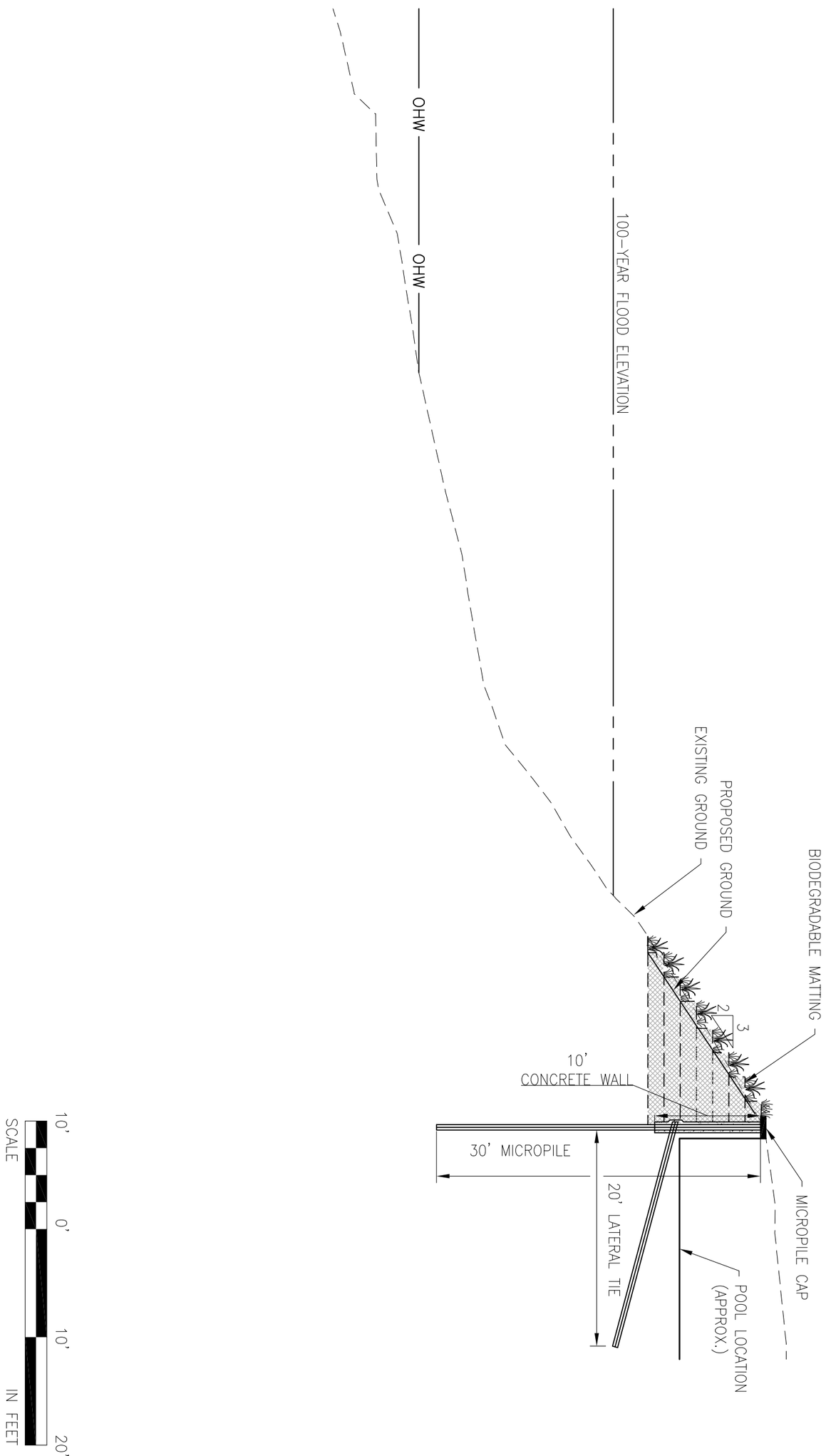
Micropile Wall Plan

otak
HanmiGlobal Partner

17347
Project No. Drawing No.

M01
Sheet No.

Plotted: Sep 23, 2014 - 12:11pm melaniem L:\Project\17300\17347\Dwg\BankTreatments_1_5_1.dwg Layout Name: MicropilePlan



Not for Construction
Preliminary Only

KLEIN BANK STABILIZATION
Mr. Gary Klein

Micropile Wall Section

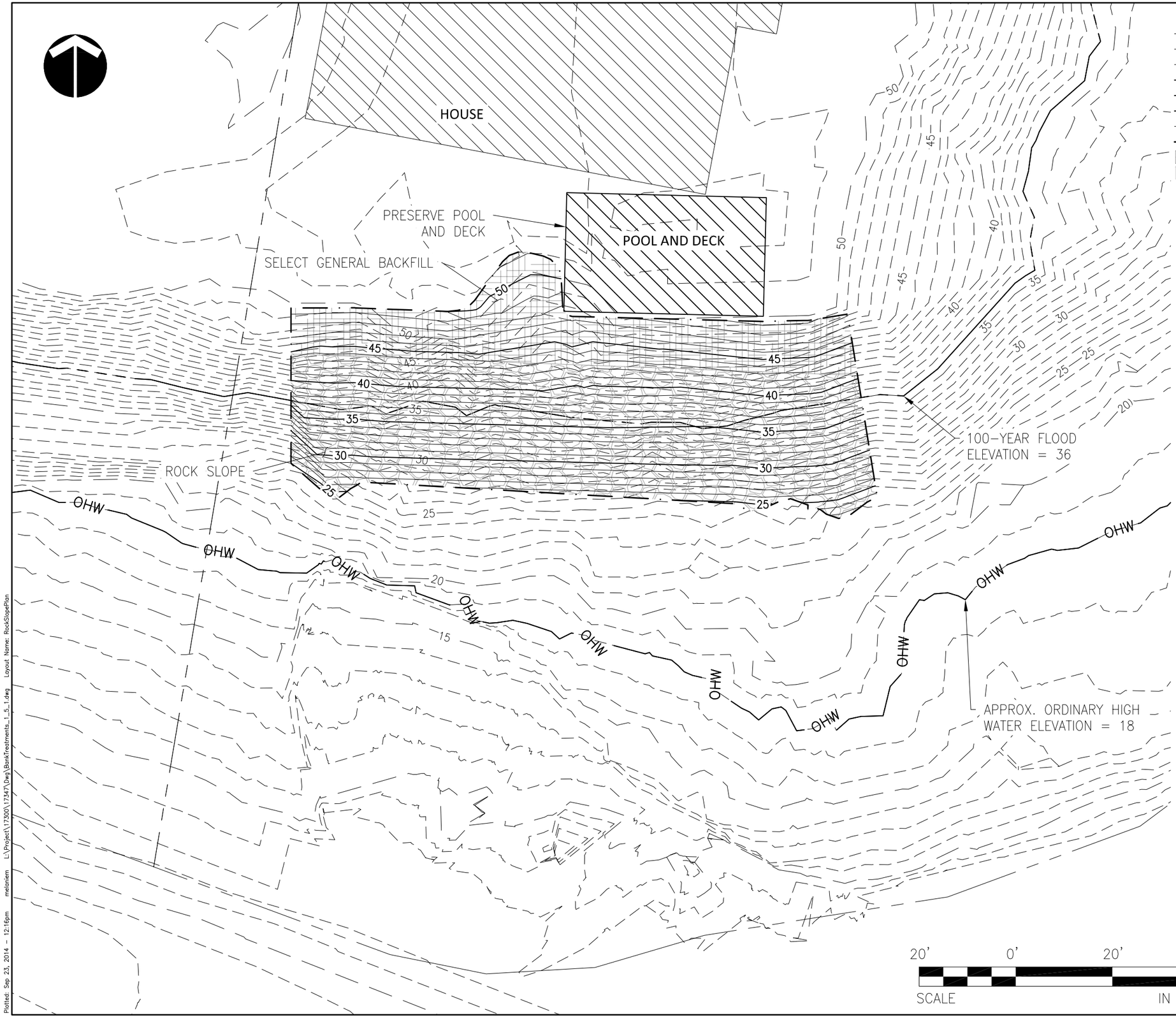
Project No. 17347
Sheet No. M02 Drawing No.

HanmiCoast Partner

NOT FOR CONSTRUCTION

NO.	DATE	BY	REVISION COMMENTS

Design	Drawn	Checked	Date	Initial Issue Date:
MCM	MCM	KJT		August 13, 2014



LEGEND

- PROPERTY LINE
- EXIST. MAJOR CONTOUR (5')
- EXIST. MINOR CONTOUR (1')
- 100-YEAR FLOOD
- OHW — ORDINARY HIGH WATER
- PROP. MAJOR CONTOUR (5')
- PROP. MINOR CONTOUR (1')
- GRADING LIMITS
- SELECT GENERAL BACKFILL
- ROCK SLOPE

NOTES

1. REMOVE EXISTING VEGETATION ON SLOPE.
2. EXCAVATE BACKSLOPE FOR ROCK BUTTRESS.
3. CONSTRUCT ROCK BUTTRESS WITH GEOGRID (SEE SECTION ON SHEET R02).
4. CONSTRUCT SOIL LIFTS AT TOP OF BUTTRESS.
5. INSTALL PLANTS AND SEEDING.

NOTE: ROCK BUTTRESS WILL NOT SUPPORT VEGETATION.

20' 0' 20' 40'

SCALE IN FEET

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM			Initial Issue Date:
Drawn	MCM			August 13, 2014
Checked	KJT			

NOT FOR CONSTRUCTION

Not for Construction
Preliminary Only

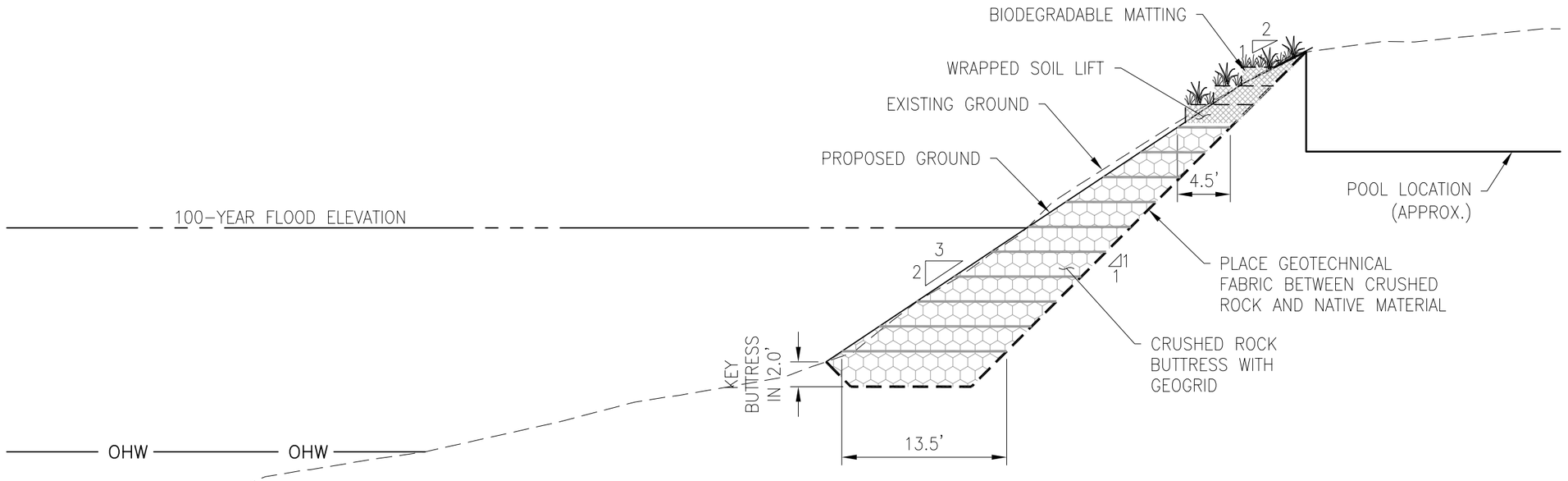
KLEIN BANK STABILIZATION
Mr. Gary Klein

Rock Buttress Plan

otak
HanmiGlobal Partner

17347
Project No. Drawing No.
R01
Sheet No.

Plotted: Sep 23, 2014 - 12:16pm melaniem L:\Project\17300\17347\Dwg\BankTreatments_1_5_1.dwg Layout Name: RockSlopePlan



10' 0' 10' 20'

SCALE IN FEET

Not for Construction
Preliminary Only

NOT FOR CONSTRUCTION

NO.	DATE	BY	REVISION COMMENTS	Date
				Initial Issue Date:
Design	Drawn	Checked		August 13, 2014
MCM	MCM	KJT		

KLEIN BANK STABILIZATION
Mr. Gary Klein

Rock Buttress Section

otak
HanmiGlobal Partner

17347
Project No. Drawing No.
R02
Sheet No.

Plotted: Sep 23, 2014 - 12:18pm melaniem L:\Project\17300\17347\Dwg\BankTreatments_1_5_1.dwg Layout Name: RockSlope

HOUSE

REMOVE POOL AND DECK

POOL AND DECK

GRADING LIMITS

50

45

40

35

30

25

20

OHW

100-YEAR FLOOD ELEVATION = 36

LOG REVETMENT AT TOE OF SLOPE

APPROX. ORDINARY HIGH WATER ELEVATION = 18

LEGEND

- PROPERTY LINE
- EXISTING MAJOR CONTOUR (5')
- EXISTING MINOR CONTOUR (1')
- 100-YEAR FLOOD
- OHW — ORDINARY HIGH WATER
- PROPOSED MAJOR CONTOUR (5')
- PROPOSED MINOR CONTOUR (1')
- GRADING LIMITS

NOTES

1. REMOVE DECK AND POOL.
2. REMOVE EXISTING VEGETATION ON SLOPE.
3. CONSTRUCT SLOPE (SEE SECTION ON SHEET S02).
4. INSTALL LIVE STAKES, PLANTS, AND SEEDING.

20' 0' 20' 40'

SCALE IN FEET

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM		Initial Issue	August 13, 2014
Drawn	MCM			
Checked	KJT			

NOT FOR CONSTRUCTION

Not for Construction
Preliminary Only

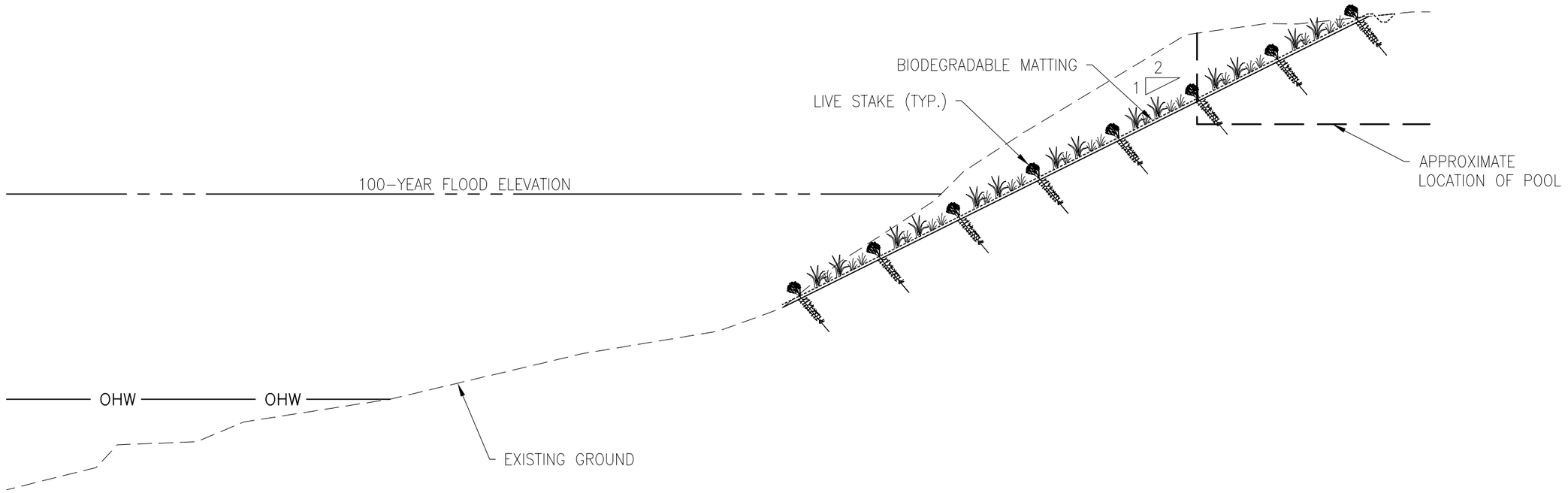
KLEIN BANK STABILIZATION
Mr. Gary Klein

2:1 Slope Plan

otak
HanmiGlobal Partner

17347
Project No. Drawing No.
S01
Sheet No.

Plotted: Sep 23, 2014 - 12:19pm melaniem L:\Project\17300\17347\Dwg\BankTreatments_2_1.dwg Layout Name: 2_1 plan



10' 0' 10' 20'

SCALE IN FEET

Not for Construction
Preliminary Only

NOT FOR CONSTRUCTION

NO.	DATE	BY	REVISION COMMENTS	Date
				Initial Issue Date:
				August 13, 2014
Design	Drawn	Checked		
MCM	MCM	KJT		

KLEIN BANK STABILIZATION
Mr. Gary Klein

2:1 Slope Section

otak
HanmiGlobal Partner

17347
Project No. Drawing No.
S02
Sheet No.

Plotted: Sep 17, 2014 - 5:54pm melaniem L:\Project\17300\17347\Dwg\BankTreatments_2_1.dwg Layout Name: 2_1 slope

Slope Stabilization at Klein Property: Micropile Wall Alternative **Preliminary Cost Estimate**
Milwaukie, Oregon
September 23, 2014 **Prepared by: Otak Inc. and Apex, LLC**

Item Number	DESCRIPTION	UNIT	QTY	UNIT PRICE	COST
SITE PREPARATION					
1	Mobilization (8%)	LS	1	$24,490	$24,490
2	Clearing and Grubbing	LS	1.0	$5,000	$5,000
3	Erosion Control	LS	1	$10,000	$10,000
SLOPE STABILIZATION					
4	Micropile Wall	LF	115	$1,590	$182,900
5	Fabric Encapsulated Soil Lift	LF	115	$40	$4,600
6	Planting	SF	2,100	$3	$6,300
7	Seeding and Mulching	SF	2,100	$1	$2,100
				SUBTOTAL	$235,390
				Contingency (30%)	$70,620
				CONSTRUCTION TOTAL	**$306,010**

Slope Stabilization at Klein Property: Rock Buttress Alternative **Preliminary Cost Estimate**
Milwaukie, Oregon
September 23, 2014 **Prepared by: Otak Inc. and Apex, LLC**

Item Number	DESCRIPTION	UNIT	QTY	UNIT PRICE	COST
SITE PREPARATION					
1	Mobilization (8%)	LS	1	$11,420	$11,420
2	Clearing and Grubbing	LS	1.0	$5,000	$5,000
3	Erosion Control (10%)	LS	1	$10,000	$10,000
SLOPE STABILIZATION					
4	Construction Geotextile for Separation	SY	650	$3	$3,390
5	Biaxial Geogrid	SY	1,130	$15	$16,950
6	Crushed Rock for Buttress	CY	830	$45	$37,350
7	Fabric Encapsulated Soil Lift	LF	115	$10	$1,150
8	Planting	SF	4,700	$5	$23,500
9	Seeding and Mulching	SF	1,000	$1	$1,000
				SUBTOTAL	$109,760
				Contingency (30%)	$32,930
				CONSTRUCTION TOTAL	**$142,690**

Slope Stabilization at Klein Property: Laidback Slope Alternative **Preliminary Cost Estimate**
Milwaukie, Oregon
September 23, 2014 **Prepared by: Otak Inc. and Apex, LLC**

Item Number	DESCRIPTION	UNIT	QTY	UNIT PRICE	COST
SITE PREPARATION					
1	Mobilization (8%)	LS	1	$6,400	$6,400
2	Clearing and Grubbing	LS	1	$5,000	$5,000
3	Erosion Control	LS	1	$10,000	$10,000
4	Removal of Pool	LS	1	$10,000	$10,000
SLOPE STABILIZATION					
4	General Excvation	CY	500	$12	$6,000
5	Live Stakes	EA	310	$2	$620
6	Planting	SF	5,700	$3	$17,100
7	Seeding and Mulching	SF	5,700	$1	$5,700
				SUBTOTAL	$60,820
				Contingency (30%)	$18,250
				CONSTRUCTION TOTAL	**$79,070**

Memorandum

otak

808 SW 3rd Avenue
Suite 300
Portland, OR 97204
Phone (503) 287-6825
Fax (503) 415-2304

To:	Gary Klein
From:	Melanie C. McCandless
Copies:	Kevin Timmins, File
Date:	Revised: August 14, 2015
Subject:	Klein Property HCA & WQR Mitigation Plan and Willamette Greenway Vegetation Buffer Plan
Project No.:	17347.A

Introduction

This memo addresses the mitigation requirements for impacting a habitat conservation area (HCA) per Milwaukie Municipal Code (MMC) Subsection 19.402.12.B.1.c, a Water Quality Resource (WQR) vegetated corridor per MMC Table 19.402.11.C and the Willamette Greenway (Greenway) Vegetation Buffer Plan requirements per MMC Subsection 19.401.8 for the proposed pool removal and slope stabilization work at the Klein property, 10795 SE Riverway Lane. The project impacts to the HCA and WQR are discussed in the Klein Property Impact Evaluation and Alternatives Analysis memo (under separate cover). The entire property is subject to the Willamette Greenway overlay requirements of MMC Subsection 19.401. At the pre-application conference on May 14, 2015 City of Milwaukie Planning Department staff indicated that the HCA & WQR mitigation plan could be combined with the Greenway buffer plan. The combined plan herein addresses both sets of requirements.

Temporary disturbances for staging and access shall be restored per MMC Subsection 19.402.11.B.1.a. The restoration of temporary disturbance areas is addressed in the Klein Property Erosion Control Plan, under separate cover.

HCA Mitigation Plan Requirements

The mitigation plan requirements of MMC Subsection 19.402.12.A.6 are met as follows:

a. Description of adverse impacts are described in the Impact Evaluation and Alternatives Analysis memo (under separate cover); also see Figure 1: Willamette Greenway Vegetation Buffer Impacts
b. Measures to avoid and minimize adverse impacts are described in the Impact Evaluation and Alternatives Analysis memo (under separate cover). Measures to mitigate adverse impacts in accordance with Subsection 19.402.11.D are discussed in the Mitigation and Buffer Plan section of this memo.

c. Achievement of the following standards:
    - Where vegetation has been removed, the site shall be revegetated as soon as practicable – per the Erosion and Sediment Control Plan (under separate cover), grass hydroseed will be applied immediately following grading to prevent erosion until the trees and shrubs become established.
    - No lights are proposed for this work, thus MMC subsection 19.402.12.A.6.c(2) is not applicable.
    - Areas of standing trees, shrubs, and natural vegetation shall remain connected and contiguous.

d. A map showing where the specific mitigation activities shall occur is attached to this memo (Figure 2: Mitigation Activities).

e. An implementation schedule is discussed in the Mitigation and Buffer Plan section of this memo.

The mitigation approval criteria of MMC Subsection 19.402.12.B.1.c are addressed as follows:

(1) *The mitigation plan shall demonstrate that it compensates for detrimental impacts to the ecological functions of the resource areas, after into consideration the efforts to minimize such detrimental impacts* – The restoration of native vegetation in the oversteepened slope grading area and supplemental plantings in the Greenway buffer compensate for the temporary negative impacts of tree removal and grading. The proposed conditions will enhance the ecological functions of improving water quality and slowing runoff (see Impact Evaluation and Alternatives Analysis memo, under separate cover).

(2) *Mitigation shall occur on the site of disturbance, to the extent practicable* – The mitigation shall occur within the Klein property in the oversteepened slope grading area and adjacent Greenway Buffer.

(3) *All revegetation plantings shall use native plants listed on the Milwaukie Native Plant list* – See the discussion of Planting Plan in the Mitigation and Buffer Plan section of this memo for details.

(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* – No in-water work is proposed for this project.

(5) *A mitigation maintenance plan shall be included and shall be sufficient to ensure the success of the planting* - See the Mitigation Maintenance and Monitoring Plan section of this memo for details.

Willamette Greenway Vegetation Buffer Requirements

The vegetation buffer is defined per MMC Subsection 19.401.8.A as the "land between the river and location 25 feet upland from the ordinary high water line." The ordinary high water line is estimated to be elevation 18 (NAVD88) per correspondence with Planning department staff. "25 feet upland" was interpreted to be a vertical offset from the ordinary high water elevation, thus the area below elevation 43 was delineated on the Klein property as the Greenway Buffer. Within the Greenway buffer, 212 square feet are permanently by the slope stabilization and 2,255 square feet are

temporarily impacted by the access road. The permanent disturbance is entirely within the limits of the HCA permanent disturbance (see attached Figure 1: Willamette Greenway Vegetation Buffer Impacts).

The requirements of MMC Subsection 19.401.8.B are addressed as such:

1. *Riverbank Stabilization* – The proposed project has identified an area of riverbank erosion at the oversteepened slope and is using bioengineering methods (biodegradable erosion control matting and native plants) to control erosion.
2. *Scenic View Protection* – The removal of the vegetation on the oversteepened slope area shall have a temporary effect of opening up the view from the Riverfront Park toward the house. However, the establishment of a shrub canopy layer will screen the view more than the current vegetation.
3. *Retain Existing Native Vegetation and Large Trees* – The removal of existing vegetation within the grading limits is necessary to achieve a more stable slope, ultimately improving the water quality in Johnson Creek and the Willamette River. The three large trees proposed to be removed are in poor health and are leaning downslope, contributing to the erosion and risk of slope failure. The limits of the grading are confined to the severely oversteepened slope area to minimize the amount of native vegetation removal required.
4. *Restore Native Vegetation* – All lands within the buffer cleared during construction shall be restored with native vegetation; see Planting Plan in the Mitigation and Buffer Plan section of this memo.
5. *Enhance Vegetation Buffer Area* – 600 sq. ft. within the buffer adjacent to the impact area shall be enhanced by removing invasive species on the City of Milwaukie's Nuisance plant list (attached) and replanting native species from the City of Milwaukie's Native Plant list (attached; see discussion in Mitigation and Buffer Plan of this memo). This area is to mitigate for the temporary impacts along the access road (the access road shall be seeded with native grasses, but planting trees and shrubs would limit future pedestrian access along the road).
6. *Security that the Plan will be Carried Out* – The submittal of this plan meets this requirement by establishing the vegetation buffer plan as part of the Type III land use review process before any permits are issued.

Mitigation and Buffer Plan

Mitigation Requirements for Disturbance in HCAs

Per MMC Subsection 19.402.11.D.2, there are two mitigation options for disturbance in HCAs and the option resulting in the greater number of trees shall be selected. Mitigation Option 2 results in a greater number of trees and is chosen for this application.

Under Mitigation Option 2, the mitigation requirement is calculated based on the total disturbance area. Per the calculations in MMC Subsection 19.402.11.D.2.b, the following plantings are required

to mitigate for the 2,833 square foot disturbance within the HCA: 29 trees, 142 shrubs, and bare ground seeded or planted with native grasses or herbs (see calculations below).

$$Number\ of\ Trees = \frac{2{,}833}{500} \times 5 = 28.3 \sim 29\ (rounded\ up)$$

$$Number\ of\ Shrubs = \frac{2{,}833}{500} \times 25 = 141.65 \sim 142\ (rounded\ up)$$

Nonnative sterile wheatgrass may also be planted or seeded, in equal or lesser proportion to the native grasses or herbs. Two conifer trees shall be planted to replace the Douglas fir removed from the oversteepened slope area.

The permanent disturbance in the oversteepened slope grading area (578 sq. ft.) shall be replanted with native species. The disturbance for the temporary access road shall be mitigated for by a 10-foot buffer from the oversteepened slope grading area, comprising 600 sq. ft. within the Greenway vegetation buffer. This buffer mitigation area shall be treated for invasive species and planted with native trees, shrubs and groundcover species. The access road shall be restored with native grasses.

Mitigation Requirements for Disturbance in WQRs

The impacted WQR is designated Class B ("Marginal"); see Klein Property Impact Evaluation and Alternatives Analysis (under separate cover). Per MMC Table 19.402.11.C the mitigation requirements for disturbance of a Class B WQR are 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
- Inventory and remove debris and noxious materials

The WQR disturbances are entirely within the HCA disturbances (see Klein Property Impact Evaluation and Alternatives Analysis, under separate cover) and shall be mitigated per this plan which will be approved during the land use review process. Debris and noxious materials will be inventoried and removed during construction.

General Standards

The mitigation plan meets the following general standards per MMC Subsection 19.402.11.B:

1. *Disturbance* – see the Mitigation Requirements for Disturbance in HCAs subsection of this memo.
2. *Required Plants* – See the Planting Plan subsection of this memo.
3. *Plant Size* – See the Planting Plan subsection of this memo.
4. *Plant Spacing* – See the Planting Plan subsection of this memo.
5. *Plant Diversity* – See the Planting Plan subsection of this memo.

6. *Location of Mitigation Area* – The mitigation shall be on-site within the mapped HCA on the Klein property (see Figure 2: Mitigation Activities).
7. *Invasive Vegetation* – See the Site Preparation and Removal of Invasive Species subsection of this memo.
8. *Ground Cover* – See the Planting Plan subsection of this memo.
9. *Tree and Shrub Survival* – See the Implementation Schedule and Mitigation Maintenance and Monitoring Plan sections of this memo.
10. *Light Impacts* – No lights shall be placed during this work.

Site Preparation and Removal of Invasive Species

Integrated pest management practices shall be used to remove invasive nonnative or noxious vegetation in the mitigation and enhancement areas prior to planting. Species on the City of Milwaukie Nuisance Plant List known to be present on the site include Himalayan blackberry (*Rubus armeniacus)* and English ivy (*Hedra helix*). Erosion and sediment control measures shall be in place before the removal of invasive vegetation due to the steep slopes and potential for erosion.

Planting Plan

The permanent disturbance due to the slope stabilization will be mitigated in place (578 square feet) and an area of oversteepened slope outside the grading limits shall be enhanced with plantings (600 square feet); see attached Figure 2: Mitigation Activities.

A variety of native plant species were selected for the mitigation and enhancement. The species selected are from the mixed deciduous/coniferous plant community (see attached Milwaukie Native Plant List and Milwaukie Native Tree List). A native erosion control grass seed mix shall be applied in the mitigation area for immediate stabilization until the native vegetation becomes established. The permanent disturbance mitigation planting area shall receive a different treatment than the buffer enhancement area due to the level of disturbance and removal of existing vegetation.

Per the Mitigation Requirements for Disturbance in HCAs, a total of 29 trees and 142 shrubs shall be planted. 18 trees and 48 shrubs shall be planted in the permanent disturbance mitigation area and 200 groundcovers will be planted to achieve 100% coverage. The buffer mitigation area shall be planted with 11 trees and 94 shrubs. All areas shall be seeded with a native erosion control grass seed mix, including the disturbed areas within the temporary access road. The species, size, and spacing for each planting area are summarized in Tables 1 and 2. Table 3 defines the native grass mix.

Table 1: Permanent Disturbance Mitigation Area Planting Plan				
Species	Type	Size	On Center Spacing (ft.)	Number
Western red cedar *(Thuja plicata)*	Tree	½ in. caliper	8 – 12	2
Cascara *(Rhamnus purshiana)*	Tree	½ in. caliper	8 – 12	4
Bitter cherry *(Prunus emarginata)*	Tree	½ in. caliper	8 – 12	4
Western flowering dogwood *(Cornus nuttallii)*	Tree	½ in. caliper	8 – 12	4
Pacific madrone *(Arbutus menziesii)*	Tree	½ in. caliper	8 – 12	2
Red alder *(Alnus rubra)*	Tree	½ in. caliper	8 -12	2
Indian plum *(Oemlaria cerasiformis)*	Shrub	1-gallon, 12-in. high	4 – 5	12
Common snowberry *(Symphocicarpos albus)*	Shrub	1-gallon, 12-in. high	4 – 5	10
Blue elderberry *(Sambucus cerulea)*	Shrub	1-gallon, 12-in. high	4 – 5	8
Western serviceberry *(Amelanchier alnifolia)*	Shrub	1-gallon, 12-in. high	4 – 5	10
Dull Oregon grape *(Berberis nervosa)*	Shrub	1-gallon, 12-in. high	4 – 5	8
Swordfern *(Polystichum munitum)*	Groundcover	Bareroot or plug	Clump of 5 plants, 1 – 1.5	50
Fringecup *(Tellima grandiflora)*	Groundcover	Bareroot or plug	Clump of 5 plants, 1 – 1.5	50
Pig-a-back *(Tolmiea menziesii)*	Groundcover	Bareroot or plug	Clump of 5 plants, 1 – 1.5	50
Dewey's sedge *(Carex deweyana)*	Groundcover	Bareroot or plug	Clump of 5 plants, 1 – 1.5	50
Native grass mix (see Table 3)	Erosion Control	N/A	N/A	N/A

Table 2: Buffer Enhancement Area Planting Plan				
Species	Type	Size	On Center Spacing (ft.)	Number
Pacific madrone *(Arbutus menziesii)*	Tree	½ in. caliper	8 – 12	4
Red alder *(Alnus rubra)*	Tree	½ in. caliper	8 -12	4
Western flowering dogwood *(Cornus nuttallii)*	Tree	½ in. caliper	8 – 12	3
Salal *(Gaultheria shallon)*	Shrub	1-gallon, 12-in. high	2 – 3	25
Red elderberyy *(Sambucus racemosa)*	Shrub	1-gallon, 12-in. high	4 – 5	5
Common snowberry *(Symphocicarpos albus)*	Shrub	1-gallon, 12-in. high	2 – 3	24
Common chokecherry *(Prunus virginiana)*	Shrub	1-gallon, 12-in. high	4 – 5	5
Nootka rose *(Rosa nootkana var. nutkana)*	Shrub	1-gallon, 12-in. high	4 – 5	15
Western serviceberry *(Amelanchier alnifolia)*	Shrub	1-gallon, 12-in. high	4 – 5	15
Indian plum *(Oemlaria cerasiformis)*	Shrub	1-gallon, 12-in. high	4 – 5	5
Native grass mix (see Table 3)	Erosion Control	N/A	N/A	N/A

Table 3: Native Grass Seed Mix for Erosion Control				
Species	% by Weight	Seeds per Pound of Mix	Seeds per Pound	Actual % by Seed Size
Meadow barley *(Hordeum brachyantherum)*	40	34,000	85,000	10.51
California brome *(Bromus carinatus)*	35	38,500	110,000	11.90
Native red fescue *(Festuca rubra rubra)*	20	100,000	500,000	30.91
Tufted hairgrass *(Deschampsia cespitosa)*	3	75,000	2,500,000	23.18
Spike bentgrass *(Agrostis exerata)*	2	76,000	3,800,000	23.49

In compliance with MMC Subsection 19.402.11.B.9, the plants shall be installed between October 15 and April 15, mulch shall be spread to a 3-inch depth at least 18-inches in diameter around each tree and shrub, and nonnative or noxious vegetation shall be controlled during the establishment period.

Implementation Schedule

The implementation schedule given in Table 3 assumes that land use approval will be granted by September 15, 2015 and that permits will be issued by October 1, 2015. Any delays in the land use approval and permitting process will necessarily push the construction begin date back, affecting the mitigation, maintenance, monitoring, and reporting schedules. The mitigation shall be completed no later than April 15, 2016 to stay within the recommended planting window for potted plants.

Table 3: Implementation Schedule Timeline		
Activity	Begin Date	End Date
Construction	October 1, 2015	November 4, 2015*
Mitigation	October 16, 2015	October 30, 2015
Establishment Period: Mitigation Maintenance and Monitoring	October 30, 2015	October 30, 2017
Reporting (annual)	October 30, 2016	October 30, 2017

* Construction of the wooden deck within the footprint of the existing brick patio shall occur after the mitigation plantings on the slope.

Contingency Plan

The contingency plan for the mitigation assumes that the land use approval and permitting process is delayed such that plants cannot be installed until the end of the planting season (April 15). More robust erosion and sediment control measures would be required for wet-weather construction. The contingency plan schedule is summarized in Table 4.

Table 4: Contingency Plan Timeline		
Activity	Begin Date	End Date
Construction	March 15, 2016	April 1, 2016
Mitigation	April 1, 2016	April 15, 2016
Establishment Period: Mitigation Maintenance and Monitoring	April 15, 2016	April 15, 2018
Reporting (annual)	April 15, 2017	April 15, 2018

Mitigation Maintenance and Monitoring Plan

The mitigation plantings shall be maintained such that a minimum of 80% of the trees and shrubs planted shall remain alive on the second anniversary of the date that the mitigation planting is completed (see Tables 3 and 4). The first two years after the planting is completed is the establishment period. Plants that die during the establishment shall be replaced in kind as needed to ensure the minimum 80% survival rate.

Planting survival shall be enhanced by watering at a rate of 1 inch per week during weeks without any precipitation between June 15 and October 15 during the establishment period. Due to the presence of beavers on site, exclusion fencing may be employed to prevent herbivory.

Monitoring reports shall be submitted annually on the anniversary of the planting completion during the establishment period. The reports shall include photographs of plant condition and a visual estimate of tree and shrub survival rate. If any replacement plantings are required they shall be summarized in the mitigation monitoring report (number and species).

Attachments

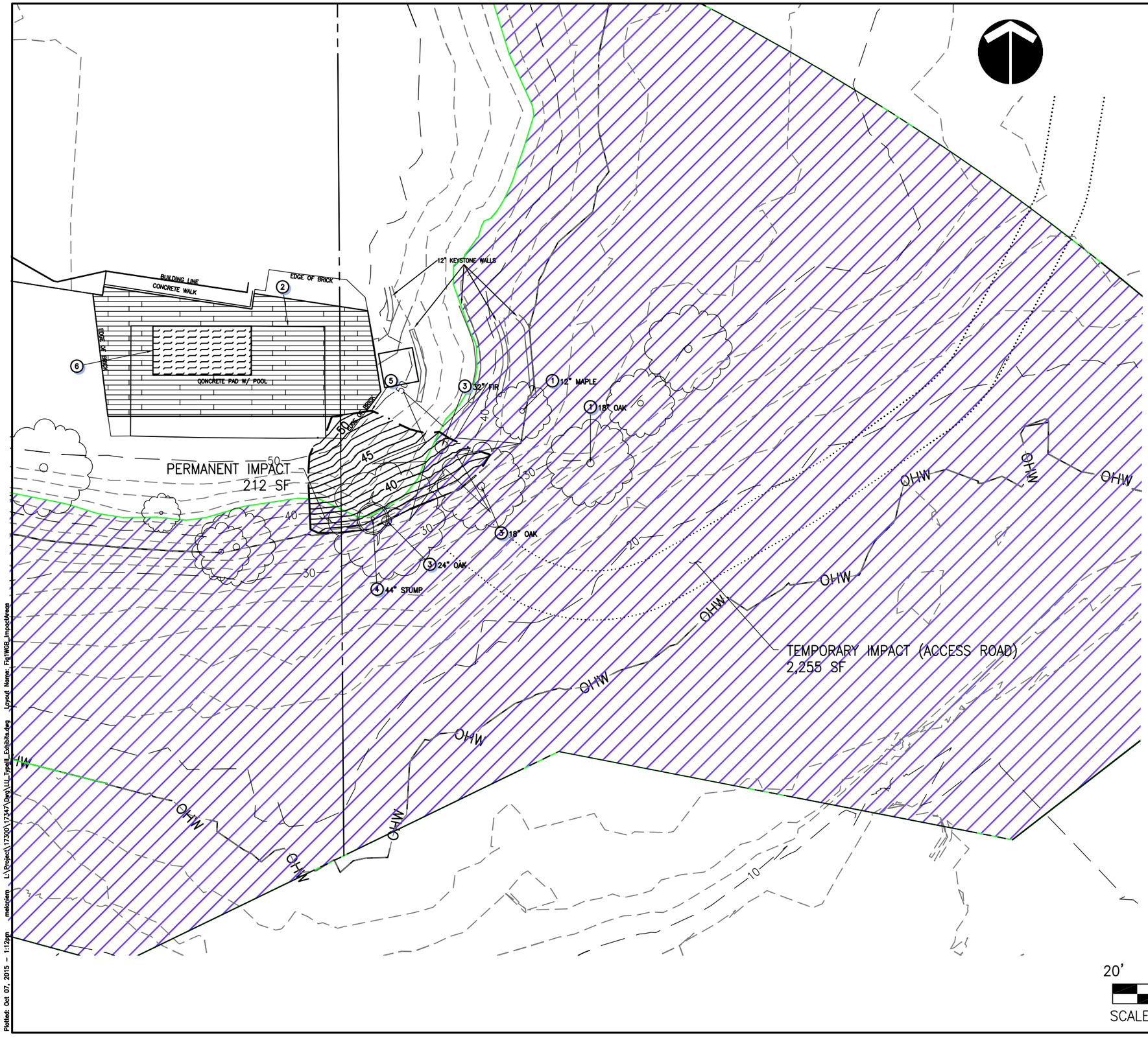
Figure 1: Willamette Greenway Vegetation Buffer Impacts

Figure 2: Mitigation Activities

Milwaukie Nuisance Plant List

City of Portland Native Plant List (Excerpt for Mixed Coniferous/Deciduous Riparian Forest)

Milwaukie Native Tree List



LEGEND

- PROPERTY LINE
- EXIST. MAJOR CONTOUR (5')
- EXIST. MINOR CONTOUR (1')
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- PROP. MAJOR CONTOUR (5')
- PROP. MINOR CONTOUR (1')
- GRADING LIMITS

EXISTING TREE (DECIDUOUS)

EXISTING TREE (CONIFEROUS)

WILLAMETTE GREENWAY VEGETATION BUFFER (TO ELEVATION 43 FT NAVD88, 25 FT UPLAND FROM OHW = 18 FT NAVD88)

CONSTRUCTION NOTES

1. PROTECT EXISTING NATIVE VEGETATION BEYOND GRADING LIMITS
2. REMOVE EXISTING POOL AND PATIO
3. REMOVE EXISTING TREE
4. REMOVE STUMP
5. GRADE AT APPROX. 1.5H:1V SLOPE, MATCHING EXISTING GROUND AT GRADING LIMITS. STABILIZE WITH NATIVE VEGETATION.
6. CONSTRUCT POOL AND WOOD DECK

20' 0' 20' 40'

SCALE IN FEET

Not for Construction
Preliminary Only

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM			Initial Issue
Drawn	MCM			Date: February, 2015
Checked	KJT			

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION

Willamette Greenway Vegetation Buffer Impacts

otak
HanmiGlobal Partner
808 SW 3RD Ave., Suite 300
Portland, OR 97204
Phone: (503) 287-6825
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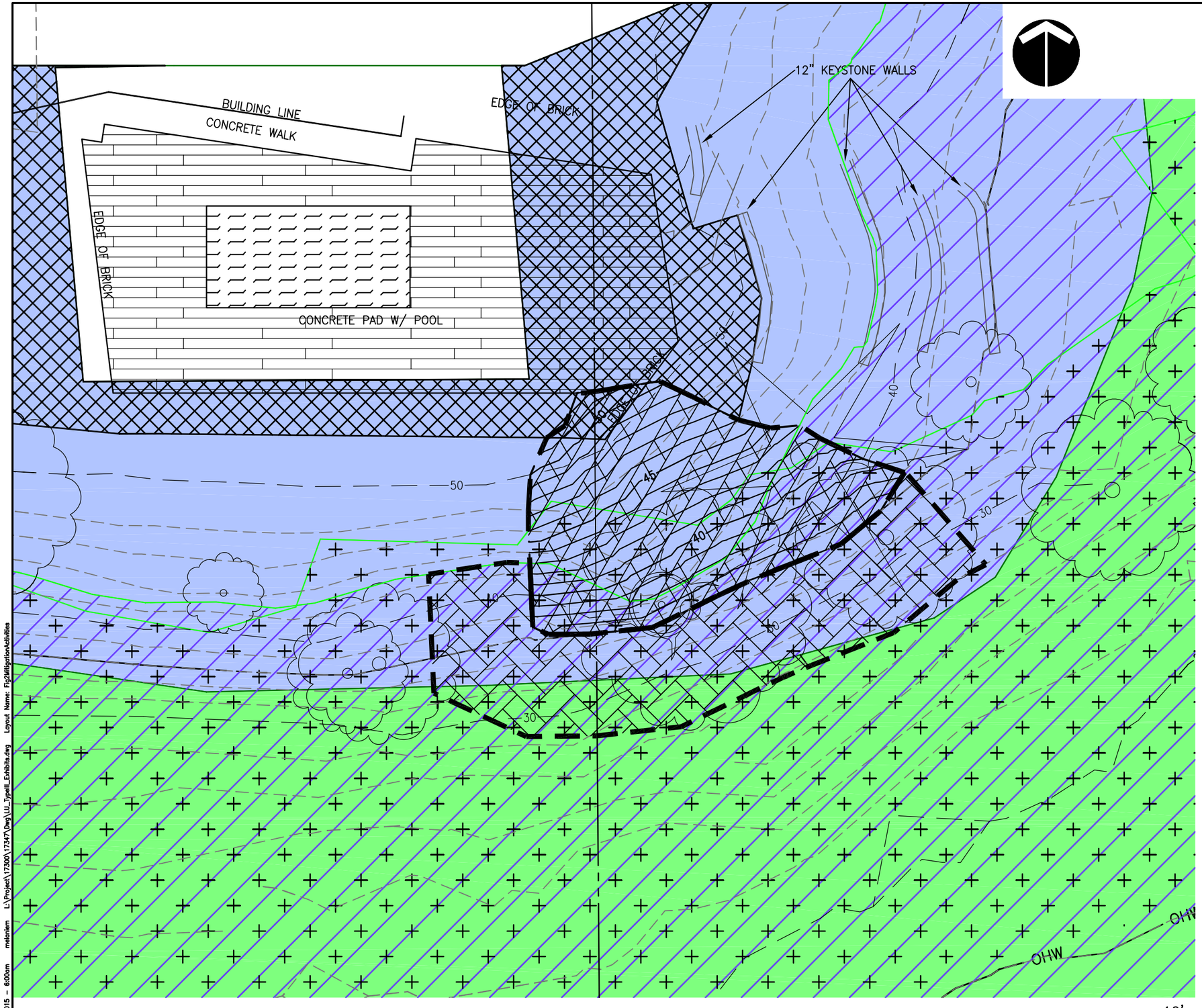
www.otak.com

17347 Project No. Drawing No. Figure 1

Sheet No.

Plotted: Oct 07, 2015 – 1:12pm melanien L:\Project\17300\17347\Dwg\LU_Typ#1_Exhibits.dwg Layout Name:: Fig1WGB_ImpactAreas



LEGEND

- PROPERTY LINE
- EXIST. MAJOR CONTOUR (5')
- EXIST. MINOR CONTOUR (1')
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- PROP. MAJOR CONTOUR (5')
- PROP. MINOR CONTOUR (1')
- GRADING LIMITS

EXISTING TREE (DECIDUOUS)

EXISTING TREE (CONIFEROUS)

HCA – LOW VALUE
(FROM MILWAUKIE GIS)

HCA – MODERATE VALUE
(FROM MILWAUKIE GIS)

AREA TO BE REMOVED FROM
HABITAT CONSERVATION AREA

WILLAMETTE GREENWAY VEGETATION BUFFER
(TO ELEVATION 43 FT NAVD88, 25 FT
UPLAND FROM OHW = 18 FT NAVD88)

WATER QUALITY RESOURCE BUFFER
(50 FT BUFFER FROM 2-YEAR FLOOD
ELEVATION OF 18.2 FT NAVD88)

PERMANENT DISTURBANCE MITIGATION AREA
578 SQ. FT.

BUFFER ENHANCEMENT AREA – 600 SQ. FT.

10' 0' 10' 20'
SCALE IN FEET

Not for Construction
Preliminary Only

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM		Initial Issue	February, 2015
Drawn	MCM			
Checked	KJT			

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION

Mitigation Activities

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17347
Project No. Drawing No.
Figure 2
Sheet No.

Plotted: Aug 14, 2015 – 6:00am melaniem L:\Project\17300\17347\Dwg\LU_TypeII_Exhibits.dwg Layout Name: Fig2MitigationActivities

City of Milwaukie Nuisance Plant List

PLANNING DEPARTMENT - PLANNING@MILWAUKIEOREGON.GOV - (503) 786-7630

The City encourages landowners and land stewards to identify and remove nuisance plants, especially from Water Quality Resources (WQRs) and Habitat Conservation Areas (HCAs).

Nuisance plants are those that threaten the health and vitality of native plant and animal communities. Nuisance plants are usually invasive, nonnative species that have been introduced into native ecosystems, intentionally or accidentally. They often outcompete native species, taking advantage of the absence of natural competitors in their new surroundings, especially where sites have been disturbed.

Removal of nuisance plants does not usually require any permit, unless significant earth disturbance will be involved and an erosion control permit is required. Adequate replanting and monitoring can ensure that nuisance plants are eradicated or at least reduced to a nonthreatening level.

There are many nuisance plants identified as part of the Milwaukie Native Plant List. The following photos are of species that are either most common in Milwaukie or that present the greatest threat to our native plant communities. For a more complete list of nuisance plants, see the Milwaukie Native Plant List, which is available online at http://www.milwaukieoregon.gov/planning/natural-resources-milwaukie-native-plant-list. For other pictures of these plants, visit the U.S. Department of Agriculture (USDA) website and check out the Image Gallery of plants: http://plants.usda.gov/gallery.html.

Milwaukie's Most (Un)Wanted Nuisance Plants

REMOVE THESE IF FOUND!

Himalayan blackberry (*Rubus armeniacus*)

Butterfly bush (*Buddleja davidii*)

Traveler's joy (*Clematis vitalba*)

Japanese knotweed (*Fallopia japonica*)

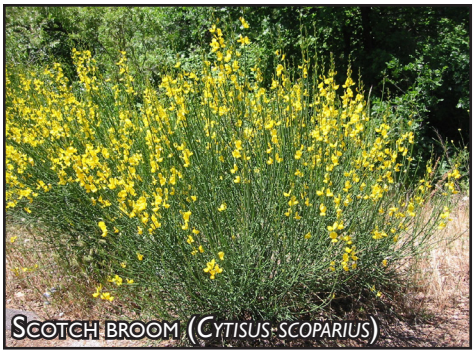
Spurge laurel (*Daphne laureola*)

Yellow flag iris (*Iris pseudacorus*)

City of Milwaukie Nuisance Plant List

Planning Department - Planning@milwaukieoregon.gov - (503) 786-7630

Milwaukie's Most (Un)Wanted Nuisance Plants (continued) — REMOVE THESE IF FOUND!


Scotch broom (*Cytisus scoparius*)


Purple loosestrife (*Lythrum salicaria*)


Giant hogweed (*Heracleum mantegazzianum*)


English ivy (*Hedera helix*)

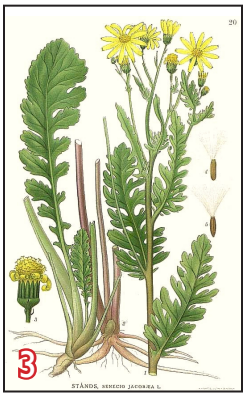

Garlic mustard (*Alliaria petiolata*)


Lesser celandine (*Ranunculus ficaria*)

Other Common Nuisance Plants: 1. Yellow archangel (*Lamiastrum galeobdolon*); 2. Hedge bindweed/Morning glory (*Calystegia sepium*); 3. Tansy ragwort (*Senecijacobaea*); 4. Policeman's helmet (*Impatiens glandulifera*); 5. Reed canarygrass (*Phalaris arundinacea*); 6. Holly (*Ilex*); 7. Orange hawkweed *(Hieracium aurantiacum*); 8. False brome (*Brachypodium sylvaticum*); 9. Pokeweed (*Phytolacca americana*); 10. Tree of heaven (*Ailanthus altissima*); 11. Canada thistle (*Cirsium arvense*)


1


2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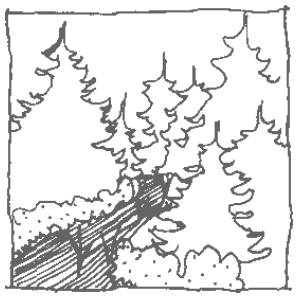
illiam S. Justice

July 2013


11

2.2 MIXED CONIFEROUS/DECIDUOUS RIPARIAN FOREST

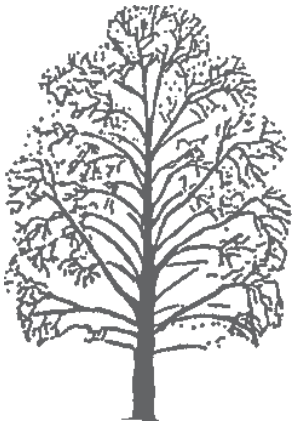
Along streams like Johnson Creek which flood periodically and have broad floodplains, a distinct mixed coniferous/deciduous community is found.



This community represents a mid–range between the narrow riparian areas and deep ravines characteristic of upper sections of streams in the west hills and the broad flood plains of the Columbia and Willamette. Western red cedars are common along with alder and bigleaf maple. Cottonwood, alder, and willows are common along the frequently flooded wet fringe on the banks of the stream. The shrub layer is dominated by red–osier dogwood, indian plum, and ninebark.

KEY	**Most common species appear in bold type**
	Italic type indicates species that rarely occur in this community within Portland

	Latin Name	Common Name
TREES	**Acer macrophyllum**	**Big–leaf Maple**
	Alnus rubra	**Red Alder**
	Crataegus suksdorfii	**Black Hawthorn**
	Fraxinus latifolia	**Oregon Ash**
	Populus balsamifera var. trichocarpa	**Black Cottonwood**
	Populus tremuloides	**Quaking Aspen**
	Salix lucida ssp lasiandra	**Pacific Willow**
	Thuja plicata	**Western Red Cedar**
	Abies grandis	Grand Fir
	Cornus nuttallii	Western Flowering Dogwood
	Pseudotsuga menziesii	Douglas Fir
	Rhamnus purshiana	Cascara



Red Alder

	Latin Name	Common Name
TREES (continued)	Salix rigida var macrogemma	Rigid Willow
	Salix scouleriana	Scouler Willow
	Tsuga heterophylla	Western Hemlock
	Taxus brevifolia	*Pacific Yew*
SHRUBS	**Acer circinatum**	**Vine Maple**
	Amelanchier alnifolia	**Serviceberry**
	Berberis nervosa	**Dull Oregon Grape**
	Cornus sericea ssp. sericea (*f.* stolonifera)	**Red–osier Dogwood**
	Gaultheria shallon	**Salal**
	Oemleria cerasiformis	**Indian Plum**
	Physocarpus capitatus	**Pacific Ninebark**
	Rosa pisocarpa	**Swamp Rose**
	Rosa nutkana var. nutkana	**Nootka Rose**
	Rubus parviflorus	**Thimbleberry**
	Rubus spectabilis	**Salmonberry**
	Salix sessilifolia	**Soft–leaved Willow**
	Salix sitchensis	**Sitka Willow**
	Sambucus racemosa	**Red Elderberry**
	Spiraea douglasii	**Douglas Spirea**
	Symphoricarpos albus	**Common Snowberry**
	Viburnum ellipticum	**Oval–leaved Viburnum**
	Euonymus occidentalis	Western Wahoo
	Lonicera involucrata	Black Twinberry
	Prunus virginiana	Common Chokecherry
	Rubus leucodermis	Blackcap Raspberry
	Sambucus cerulea	Blue Elderberry
	Salix fluviatilis	Columbia River Willow
	Spiraea betulifolia var lucida	Shiny–leaf Spiraea

Serviceberry

	Latin Name	Common Name
SHRUBS (continued)	*Ribes bracteosum*	*Blue Currant*
	Rubus ursinus var macropetalus	*Dewberry*
	Salix hookeriana (formerly piperi)	*Piper's Willow*
HERBACEOUS, GRASSES, ETC.	**Achlys triphylla**	**Vanillaleaf**
	Adiatum aleuticum	**Northern Maiderhair Fern**
	Athyrium filix–femina	**Lady Fern**
	Carex deweyana ssp. leptopoda	**Dewey's Sedge**
	Carex obnupta	**Slough Sedge**
	Dicentra formosa	**Pacific Bleedingheart**
	Elymus glaucus ssp. jepsonii	**Jepson's Blue Wildrye**
	Equisetum arvense	**Common Horsetail**
	Equisetum hyemale	**Common Scouring–rush**
	Galium trifidum	**Small Bedstraw**
	Hydrophyllum tenuipes	**Pacific Waterleaf**
	Montia perfoliata	**Miner's Lettuce**
	Petasites frigidus var. palmatus	**Palmate Coltsfoot**
	Polypodium glycyrrhiza	**Licorice Fern**
	Polystichum munitum	**Sword Fern**
	Prosartes hookeri	**Hooker's Fairybells**
	Prosartes smithii	**Smith Fairybells**
	Pteridium aquilinum	**Bracken Fern**
	Smilacina racemosa	**Western False Solomon's Seal**
	Smilacina stellata	**Starry False Solomon's Seal**
	Tellima grandiflora	**Fringecup**
	Tolmiea menziesii	**Pig–a–back**
	Trillium ovatum	**Western Trillium**
	Trisetum canescens	**Tall Trisetum**
	Urtica dioica	**Stinging Nettle**
	Viola glabella	**Stream Violet**
	Actaea rubra	Baneberry
	Alisma plantago–aquatica var. americanum	American Water–plantain

Lady Fern

	Latin Name	Common Name
HERBACIOUS, GRASSES, ETC. (continued)	Alopecurus geniculatus	Water Foxtail
	Blechnum spicant	Deer Fern
	Carex hendersonii	Henderson's Wood Sedge
	Dicentra formosa	Pacific Bleedingheart
	Dryopteris arguta	Wood Fern
	Geum macrophyllum	Oregon Avens
	Heracleum lanatum	Cow–parsnip
	Lysichitum americanum	Skunk Cabbage
	Maianthemum dilatatum	False Lily–of–the–valley
	Mitella caulescens	Leafy Mitrewort
	Mitella pentandra	Five–stamened Mitrewort
	Montia sibirica	Candy Flower
	Oenanthe sarmentosa	Pacific Water–parsley
	Oplopanax horridus	Devil's Club
	Prunella vulgaris var. lanceolata	Heal–all
	Pyrola asarifolia	Wintergreen
	Rubus ursinus	Pacific Blackberry
	Scirpus microcarpus	Small–fruited Bulrush
	Thalictrum occidentale	Western Meadowrue
	Trientalis latifolia	Western Starflower
	Veronica americana	American Brooklime
	Aster modestus	*Few–flowered Aster*
	Boykinia occidentalis	*Slender Boykinia*
	Boykinia major	*Greater Boykinia*
	Calamagrostis canadensis	*Bluejoint*
	Carex amplifolia	*Big–leaf Sedge*
	Dicentra formosa ssp. Oregana	*Oregon Bleeding Heart*
	Dodecatheon pulchellum	*Few–flowered Shooting Star*
	Myosotis laxa	*Small–flowered Forget–me–not*
	Nothochelone nemorosa	*Turtle Head*
	Sanicula crassicaulis	*Pacific Sanicle*
	Trillium chloropetalum	*Giant Trillium*

PLANNING DEPARTMENT
6101 SE Johnson Creek Blvd, Milwaukie OR 97206
PHONE: *503-786-7630* **FAX:** *503-774-8236*
E-MAIL: *planning@milwaukieoregon.gov*

NATIVE TREE LIST

from the *Portland Plant List*, July 2010

Scientific Name	Common Name	Fire Accelerant? * +	Indicator Status	Habitat Type						
				Wetland	Riparian	Forest	F. Slope	Thicket	Grass	Rocky
Abies grandis	Grand Fir	Y	FACU-	●	●	●	●			
Acer macrophyllum	Big-leaf Maple	N	FACU			●	●			
Alnus rubra	Red Alder	N	FAC		●	●	●			
Arbutus menziesii	Madrone	N				●				
Cornus nuttallii	Western Flowering Dogwood	N				●	●			
Crataegus suksdorfii	Black Hawthorn	N	FAC	●	●	●	●	●		
Fraxinus latifolia	Oregon Ash	N	FACW	●	●					
Pinus ponderosa	Ponderosa Pine	Y	FACU-			●	●			
Populus balsamifera sp. trichocarpa	Black Cottonwood	N	FAC	●	●					
Populus tremuloides	Quaking Aspen	N		●	●					
Prunus emarginata	Bitter Cherry	N	FACU		●		●	●		
Pseudotsuga menziesii	Douglas Fir	Y	FACU			●	●			
Pyrus ***(see Malus)***		N								
Quercus garryana	Garry Oak	N				●	●		●	
Rhamnus purshiana	Cascara	N	FAC-		●	●	●			
Salix lucida sp. lasiandra	Pacific Willow	N	FACW+	●	●					
Salix rigida v. macrogemma	Rigid Willow	N	OBL	●	●					
Salix scouleriana	Scouler Willow	N	FAC	●	●	●				
Taxus brevifolia	Pacific Yew	Y	NI		●	●	●			
Thuja plicata	Western Red Cedar	Y	FAC	●	●	●	●			
Tsuga heterophylla	Western Hemlock	Y	FACU-		●	●	●			

KEY

**Fire Accelerant Y: plans with higher than average flammable combustion potential due to flammability chemicals present within the leaves, needles, and stems; Fire accelerant N (neutral): plants with average flammable combustion potential (There are no chemicals present within the stems, leaves, and needles that make it less flammable or more flammable than average).*

+ Riccardi, et al. In Press. Quantifying physical characteristics of wildland fuels in the Fuel Characteristic Classification System. Canadian Journal of Forest Research.

INDICATOR STATUS

Obligate Wetland (OBL) *almost always occur in wetlands*
Facultative wetland (FACW) *occur in wetlands 67%–99% of the time*
Facultative (FAC) *equally likely to occur in wetlands or non-wetlands*
Facultative Upland (FACU) *occur wetlands only 1%–33% of the time*
Obligate Upland (UPL) *almost never, under natural conditions, occur in wetlands in the Northwest*
No indicator (NI) *no status*
A positive (+) sign *the plant occurs more frequently in wetlands, at the higher end of the wetland status category range*
A negative (–) sign *the plant occurs less frequently in wetlands, at the lower end of the wetland status category range*

● ***HABITAT***

WETLAND *all forms of wetlands*
RIPARIAN *stream and river shorelines and bottomlands*
FOREST *flat or mildly rolling forests*
FOREST SLOPE *steeply sloping upland forests such as in the West Hills or East Buttes*
THICKET *forest edges, hedgerows, clumps of vegetation in meadows*
GRASS *open areas, meadows*
ROCKY *rocky upland areas and cliffs*

Memorandum

otak

808 SW 3rd Avenue
Suite 300
Portland, OR 97204
Phone (503) 287-6825
Fax (503) 415-2304

To: Gary Klein

From: Melanie McCandless

Copies: Kevin Timmins, File

Date: Revised: August 14, 2015

Subject: Klein Property Construction Management Plan

Project No.: 17347.A

Introduction

This memo addresses the construction management plan requirements of Milwaukie Municipal Code (MMC) Subsection 19.402.D for the proposed pool removal and slope stabilization work at the Klein property, 10795 SE Riverway Lane. This plan is required per development standard 10 of MMC 19.402.11.A protection of natural resources during site development.

Project Description

The work areas include an existing pool and brick patio and an oversteepened slope with poor vegetation. The pool and patio shall be removed and replaced with a smaller pool set back from the slope and a wooden deck. The existing vegetation shall be removed from the oversteepened slope, it will be graded to a gentler slope matching existing ground and replanted with native trees, shrubs, and groundcovers (see Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan, under separate cover).

The work is taking place above and near the top of slope facing the confluence of Johnson Creek (Creek) and the Willamette River (River). The work is being done to protect both waterways from sediment due to slope erosion and risk of slope failure.

The work is occurring above the 100-year flood elevation (36 ft NAVD88) and outside of the special flood hazard area. The proposed work impacts low-quality habitat conservation area and water quality resource vegetated corridor (see Impact Evaluation and Alternatives Analysis, under separate cover).

Compliance with MMC Subsection 19.402.9.B

1. *Description of work to be done* – see Project Description section of this memo.
2. *Scaled site plan showing WQRs, HCAs, and work to be done* – see attached Figure 1: Construction Management Site Plan and the figures in the Klein Property Impact Evaluation and

Alternatives Analysis memo (under separate cover).

3. *Location of site access and egress* – The site shall be access from the Klein Property and the adjacent MODA property. Pedestrian and small machinery shall access the work area through the driveway and side yard. Machinery access shall be along an existing access road through the MODA property used during the construction of the Confluence habitat enhancement project in 2011. See Erosion Control Plan sheet EC01 attached to the Klein Property Erosion Control Plan memo (under separate cover) and attached Figure 1: Construction Management Site Plan.
4. *Equipment and material staging and stockpile areas* – The staging and stockpile area shall be in the side yard. See Erosion Control Plan sheet EC01 attached to the Klein Property Erosion Control Plan memo (under separate cover) and attached Figure 1: Construction Management Site Plan.
5. *Erosion and sediment control measures* – The erosion control methods employed for this project include perimeter controls, diversion dikes & swales, temporary plastic sheeting, wattles, biodegradable erosion control matting, seeding, and permanent vegetation. See Klein Property Erosion Control Plan memo (under separate cover) and attached Figure 1: Construction Management Site Plan.
6. *Measures to protect trees and other vegetation* – See attached Figure 1: Klein Property Consturction Management Site Plan and Klein Property Erosion Control Plan memo (under separate cover). Plan sheet EC01 shows the placement of high-visibility fence around trees and other vegetation outside the clearing limits and detail 2 on sheet EC02 shows the demarcation of the root protection zone.

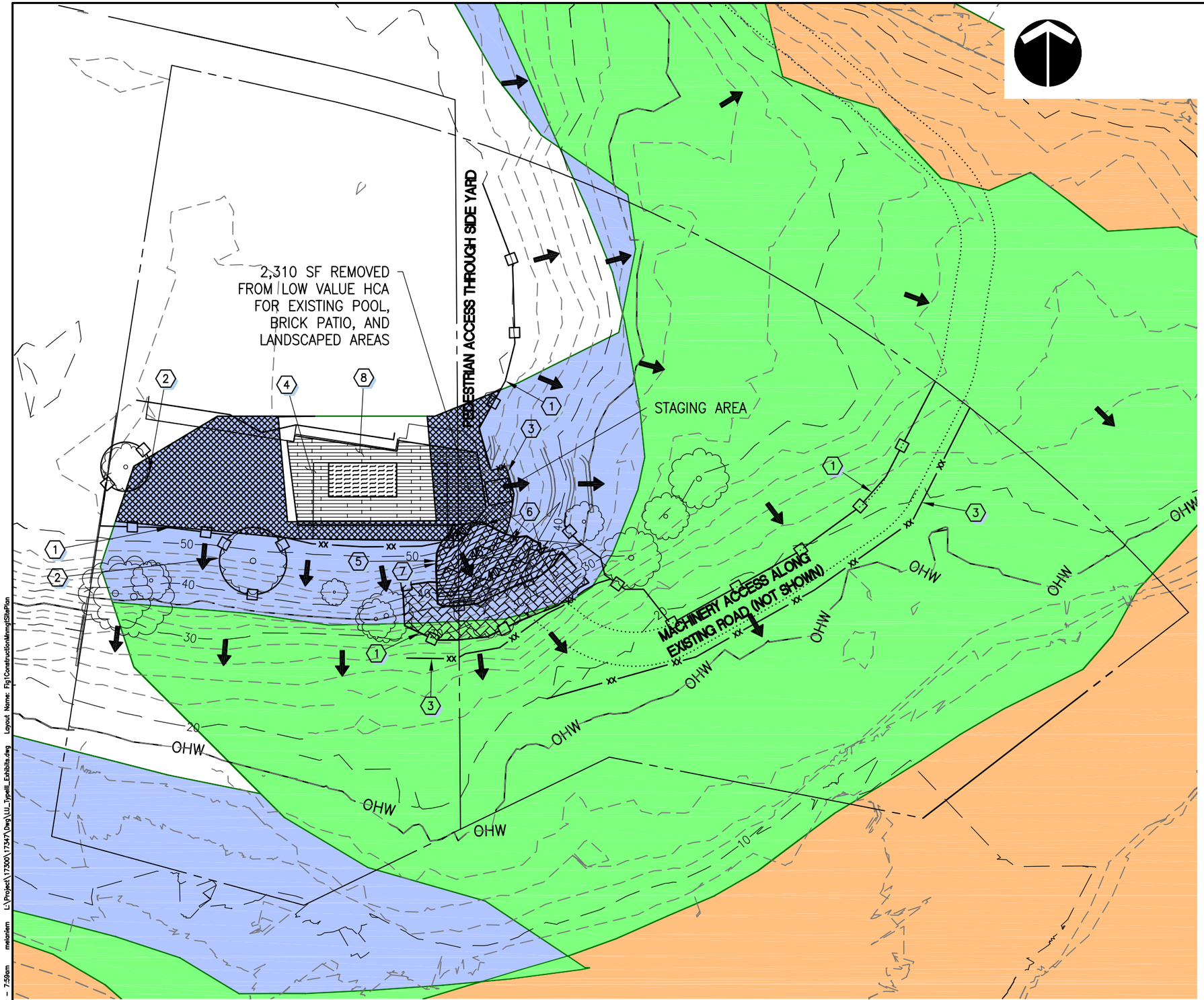
Attachments

Figure 1: Construction Management Site Plan

Klein Property Erosion Control Plan (under separate cover)

Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan (under separate cover)

Klein Property Impact Evaluation and Alternatives Analysis (under separate cover)



30' 0' 30' 60'

SCALE IN FEET

LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (10') – EXISTING
- MINOR CONTOUR (2') – EXISTING
- 100–YEAR FLOOD
- ORDINARY HIGH WATER
- MAJOR CONTOUR (10)' – PROPOSED
- MINOR CONTOUR (2') – PROPOSED
- HIGH–VISIBILITY FENCE
- SEDIMENT FENCE
- WATTLES
- FLOW DIRECTION
- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- HCA – LOW VALUE
- HCA – MODERATE VALUE
- HCA – HIGH VALUE
- AREA TO BE REMOVED FROM HABITAT CONSERVATION AREA
- PROPOSED DECK (APPROX.)
- PROPOSED POOL (APPROX.)
- PERMANENT DISTURBANCE MITIGATION AREA 578 SQ. FT.
- BUFFER ENHANCEMENT AREA – 600 SQ. FT.

SEQUENCE OF EROSION CONTROL NOTES

1. INSTALL HIGH–VISIBILITY FENCE
2. PROTECT EXISTING VEGETATION (FOR DETAILS, SEE SHEET EC02).
3. INSTALL SEDIMENT FENCE (FOR DETAILS, SEE SHEET EC02).
4. REMOVE EXISTING POOL AND PATIO. CONSTRUCT NEW POOL. USE PLASTIC SHEETING TO COVER EXPOSED SOILS. DIRECT FLOWS TO EXISTING POOL.
5. GRADE AT APPROX. 1.5H:1V SLOPE, MATCHING EXISTING GROUND AT GRADING LIMITS. INSTALL BIODEGRADABLE EROSION CONTROL MATTING (FOR DETAILS, SEE SHEET EC02) AND APPLY SEEDING.
6. INSTALL WATTLES (FOR DETAILS, SEE SHEET EC02).
7. PERMANENTLY STABILIZE WITH NATIVE TREES, SHRUBS, AND GROUNDCOVER (FOR DETAILS, SEE MITIGATION AND BUFFER PLAN).
8. CONSTRUCT NEW POOL AND WOOD DECK. REMOVE TEMPORARY EROSION CONTROL MEASURES. RESTORE ACCESS ROAD WITH NATIVE EROSION CONTROL GRASS SEED MIX.

Not for Construction
Preliminary Only

NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM			Initial Issue Date:
Drawn	MCM			February, 2015
Checked	KJT			

NOT FOR CONSTRUCTION

KLEIN PROPERTY SLOPE STABILIZATION
CONSTRUCTION MANAGEMENT PLAN
Site Plan

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17347
Project No. Drawing No.
Figure 1
Sheet No.

Plotted: Aug 14, 2015 – 7:59am melanien L:\Project\17300\17347\Dwg\LU_TypeIII_Exhibits.dwg Layout Name: Fig1ConstructionMmgtSitePlan

Memorandum

otak

808 SW 3rd Avenue
Suite 300
Portland, OR 97204
Phone (503) 287-6825
Fax (503) 415-2304

To: Gary Klein

From: Melanie McCandless

Copies: Kevin Timmins, File

Date: Revised: August 14, 2015

Subject: Klein Property Erosion Control Plan

Project No.: 17347.A

Introduction

This memo addresses the erosion and sediment control plan requirements of Milwaukie Municipal Code (MMC) Chapter 16.28 for the pool removal and slope stabilization work at the Klein property, 10795 SE Riverway Lane. This plan is required before the issuance of an erosion control permit per MMC Subsection 16.28.020.B. An erosion control permit is required prior to placement of fill, site clearing, or land disturbances per MMC Subsection 16.28.020.C.3 since the lot includes natural resources regulated by MMC Chapter 19.402 (Natural Resources).

Project Description

The work areas include an existing pool and brick patio and an oversteepened slope with poor vegetation. The pool and patio shall be removed and replaced with a smaller pool set back from the slope and a wooden deck. The existing vegetation shall be removed from the oversteepened slope, it will be graded to a gentler slope matching existing ground and replanted with native trees, shrubs, and groundcovers (see Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan, under separate cover).

The work is taking place above and near the top of slope facing the confluence of Johnson Creek (Creek) and the Willamette River (River). The work is being done to protect both waterways from sediment due to slope erosion and risk of slope failure.

The Natural Resources Conservation Service soil survey does not include detailed mapping for the site; it is classified as generic Urban Lands (see attached Klein Property Soil Survey map). Geotechnical investigations conducted on-site encountered approximately twenty-five feet of fine silts and sands overlying basalt bedrock. The proposed grading work occurs entirely within the silts and sands. These sediments are highly erodible and will need immediate protection after grading.

The work is occurring above the 100-year flood elevation (36 ft NAVD88) and outside of the special flood hazard area.

Site Access

During the construction of the Confluence project in 2011 (habitat enhancement in Johnson Creek at the confluence with the Willamette River) the Klein Property was accessed by an existing access road on the adjacent MODA property. Machinery shall access the oversteepened slope grading area along the same road.

The road entrance on the neighboring property is maintained by PGE for access to the transmission lines and the roadway is graveled (see Picture 1). On the Klein property, the roadway has overgrown with grasses (see Picture 2).

Picture 1: Existing access road on neighboring property. Maintained gravel base with limited vegetation growth.

Picture 2: Existing access road on Klein property. Overgrown with grasses. Adjacent trees will be protected from disturbance.

During this work, limited clearing may be necessary along the road but no trees will be removed. Native vegetation beyond the road limits will be protected from disturbance with high-visibility fence and sediment fence (see attached Site Plan EC01).

The road on the Klein property shall be restored with a native grass erosion control seed mix after construction to stabilize the soils (see Table 1).

Table 1: Native Grass Seed Mix for Erosion Control				
Species	% by Weight	Seeds per Pound of Mix	Seeds per Pound	Actual % by Seed Size
Meadow barley *(Hordeum brachyantherum)*	40	34,000	85,000	10.51
California brome *(Bromus carinatus)*	35	38,500	110,000	11.90
Native red fescue *(Festuca rubra rubra)*	20	100,000	500,000	30.91
Tufted hairgrass *(Deschampsia cespitosa)*	3	75,000	2,500,000	23.18
Spike bentgrass *(Agrostis exerata)*	2	76,000	3,800,000	23.49

The use of the access road is counted as temporary disturbance of the Habitat Conservation Area, Water Quality Resource vegetated corridor, and Willamette Greenway Vegetative Buffer (see Klein Property Impact Evaluation and Alternatives Analysis, Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation Buffer Plan, under separate cover).

Erosion Control Methods

The erosion control methods employed for this project include perimeter controls, diversion dikes & swales, temporary plastic sheeting, wattles, biodegradable erosion control matting, seeding, and permanent vegetation. Sediments released during the pool and patio removal shall be directed toward the decommissioned pool acting as a sedimentation pond. Sediments released from the slope grading shall be intercepted by wattles and perimeter controls and prevented from travelling downslope toward the Creek and River. An existing vegetation buffer between the work areas and the Creek and River shall be maintained. The limits of clearing and grading shall be flagged or marked with high-visibility fence. See the attached Erosion Control Plan Sheets EC01-EC03 for details.

These best management practices are the basis of the erosion control plan, but if these controls are not sufficient to prevent erosion and control sediment, the plan shall be revised.

Implementation Schedule

Due to the Type III land use review schedule construction is likely to occur during the wet weather season (October 1 – May 31). The implementation schedule given in Table 2 assumes that land use approval will be granted by September 15, permits will be issued by October 1, and that construction will start thereafter. Delays in the land use and permitting schedule will consequently delay construction and increase the risk of erosion during wet weather (see discussion of Contingency Plan in Klein Property HCA & WQR Mitigation and Willamette Greenway Vegetation

Buffer Plan).

Table 2: Erosion and Sediment Control Implementation Schedule			
Activity	Begin Date	End Date	Erosion and Sediment Control Measures
Mobilization and Installation of Perimeter Control	October 1, 2015	October 2, 2015	Sediment Fence, Staging Areas, flag clearing limits
Brick Patio Removal and Pool Decommissioning	October 5, 2015	October 8, 2015	Diversion dike/swale, sediment fence
Tree Removal, Clearing and Grubbing, Topsoil Stripping of Oversteepened slope	October 9, 2015	October 12, 2015	Sediment fence, flag clearing limits, plastic sheeting
Excavate Oversteepened Slope	October 12, 2015	October 16, 2015	Sediment fence, plastic sheeting
Temporary stabilization of excavated slope	October 12, 2015	October 16, 2015	biodegradable erosion control blanket, wattles, seeding
Permanent stabilization: mitigation planting of excavated slope	October 16, 2015	October 23, 2015	Sediment fence, planting
Buffer Mitigation Planting	October 23, 2015	October 30, 2015	Sediment fence, planting
Construct wooden deck	November 2, 2015	November 4, 2015	Sediment fence, staging areas
Remove erosion control measures and restore site	November 4, 2015	November 6, 2015	Seeding

Attachments

Klein Property Soil Survey Map

Geotechnical Investigation Letter: Proposed Klein Residence Slope Modifications

Erosion Control Plan Sheets

EC01: Erosion and Sediment Control Plan – Site Plan

EC02: Erosion and Sediment Control Plan – General Notes and Details

EC03: Erosion and Sediment Control Plan – Details

Monitoring Forms and Inspection Checklist

Soil Map—Clackamas County Area, Oregon
(Klein Property)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Clackamas County Area, Oregon
Survey Area Data: Version 9, Sep 19, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 26, 2014—Sep 5, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Clackamas County Area, Oregon (OR610)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
82	Urban land	2.3	91.0%
W	Water	0.2	9.0%
Totals for Area of Interest		**2.5**	**100.0%**

April 14, 2015

Ms. Melanie C. McCandless
Otak, Inc.
808 SW Third Avenue Suite 300
Portland, Oregon 97204

Re: Geotechnical Site Investigation
Proposed Klein Residence Slope Modifications
Milwaukie, Oregon
2200-00

Dear Ms. McCandless:

Per your request, we have completed our site reconnaissance and subsurface explorations for the Klein Residence, located at 10795 SE Riverway Lane in Milwaukie, Oregon. The subject property is a single family residential parcel, located at the confluence of Johnson Creek and the Willamette River. The developed portion of the site is relatively flat with the east and south property boundaries, consisting of steep creek and river banks. The location of the site is shown on our Vicinity Plan, Plate 1. Based on our discussions and observations, we understand that the face of the southern slope has been subject to surface erosion and sloughing, and is receding.

The purpose of our work was to provide geotechnical engineering recommendations relative to addressing the slope regression. Our scope of work included a preliminary geologic site reconnaissance, as well as completion of drilled borings adjacent to the swimming pool.

Site Reconnaissance. The Klein Residence is surrounded on three sides by relatively tall (35 feet high) creek and river banks. The east facing banks are generally at reasonable gradients and show no particular signs of movement. However, the south bank is susceptible to erosion and undermining during high water events. This erosion has caused the crest of the slope (the outer edge of the yard) to creep towards the house.

During our reconnaissance of the south facing bank, we noted that central portion of the bank is quite oversteepened with localized gradients approaching 1H:1V and limited vertical elements. This oversteepening appears to be the result of erosion during high water events. The erosion is undermining a number of trees which are currently being supported by their upper roots exclusively. In general, the trees show evidence of downslope translation. Evidence of past tree failures can be seen up and down the river bank. The central portions of the slopes are generally sparsely vegetated. This is due to a combination of active erosion and shading from the trees. The denuded soil is particularly susceptible to erosion from creek and river action.

Subsurface Explorations. We completed two drilled borings between the pool and slope crest. The borings were completed using a small, man-portable drill rig. Locations of the borings are shown on the Site Plan, Plate 1. Both borings encountered approximately 25 feet of silts and fine sands overlying intact basalt bedrock. The soil profile is consistent with the conditions observed during our reconnaissance. Logs of our borings are included in the Appendix.

SLOPE STABILITY

During high water, the bedrock present on the lower 10 feet of the slopes concentrates the energy of the river into the overlying sands and silts. Those soils are highly susceptible to erosion. This erosion removes material at the toe of

the slope and results in oversteepened and even overhanging areas that later slough or fail. This process has resulted in removal of more than 10 feet of backyard.

The house structure is located some 30 feet back from the crest of the slope and is not susceptible to the bank erosion and slope regression. If the pool were to be maintained, it would be necessary to construct a large pile wall to support the pool area. We have reviewed this approach with the property owner and project team, and the homeowner determined that it was not cost effective given the value of the pool. As a result, the goal of the project is to reduce future slope regression in a cost effective manner in order to preserve as much lawn as possible and potentially allow for the development of a future pool.

In order to develop truly stable banks, the portions of the slopes above the height of inundation by Johnson Creek and the Willamette River would need to be graded to 2H:1V or flatter. Further, the portions below the inundation elevation would be graded to 3H:1V or flatter and be armored. Such gradients are not feasible for this site without encroaching on the existing development and/or placing large quantities of fill below ordinary high water.

After discussions with the homeowners and project team, the approach selected for the site consists of softening the steepest slopes, removing the swimming pool, and planting the slope faces with appropriate vegetation. We have worked with the project team to lay out a series of cross-sections showing excavations that would result in a smaller yard for the house and demolition of the swimming pool. The finished slope gradients will be slightly steeper than 1.5H:1V. This gradient is consistent with the slopes around the house that have performed reasonably well. Site grading will be completed above the ordinary high water line (Elevation 18).

In general, the slope softening will be accomplished by excavation rather than fill placement. It will be important not to add mass to the slopes through the use of retaining walls or rockeries. The finished gradients will be steeper than those that would generally be considered stable and any further increase in gradient would likely lead to reactivated failures.

Erosion Control. Apex recommends that finished cut and fill slopes be protected immediately following grading with matting, vegetation, or other approved erosion control methods. Water should not be allowed to flow over slope faces or drop from outfalls, but should be collected and routed to storm water disposal systems. Long term erosion control should be achieved through the planting of native vegetation over a dense pattern.

Vegetation. In general, the past and present large trees on the slopes have negatively impacted slope stability. Although the potential for trees to resist landslides is a widely held notion with the general public, in reality, the only true benefit is in deflecting rainfall. That benefit could be met with any number of low, shrub-like plantings. The destabilizing impact of trees comes with the increased mass of a mature tree. Large trees on steep slopes tend to lean downslope until they fall over. This process acts like a fulcrum and results in a large volume of material translating into the creek, contributing to the regression of the slope crest. Very mature cedar trees have deep roots and can assist in a very small way with resisting slope movements. Other trees are too shallow rooting to be of any particular assistance.

Undermined trees, and, in particular, the oaks that are growing out of the stumps of previously failed trees, should be removed from the slope. We recommend that the slopes be revegetated with dense shrub vegetation that can provide erosion cover from direct rainfall. Further, the slopes should be hydroseeded so that grasses can provide similar benefits until the larger vegetation takes hold. Willows and other live staked trees could be used sparingly on the lower slopes.

Future Development. The methodology proposed for the site is intended to reduce the slope regression rate. As previously noted, in order to avoid future regression entirely, a large structure of buttressing fill would be necessary. As such, we do not recommend extending the house closer to the slope crest than the current footprint. Surface

landscaping, including patios, could be developed but should generally be located more than 10 feet from the new slope crest.

A new swimming pool could be developed, although the edge of the pool structure should also be more than 10 feet from the slope crest. A new pool would require careful design and location to avoid recreating the existing slope issues.

GRADING RECOMMENDATIONS

Dry Weather Grading. We strongly recommend that site preparation and grading be conducted during extended periods of warm, dry weather, typical of summer through early fall months.

Site Preparation. Topsoil should be stripped from all fill areas. Topsoil and surface organic stripping will likely extend to depths of 2 or 3 inches, but may be deeper in localized areas. Further, organic fill soils are likely to be encountered in discrete locations. Such deposits should be treated as topsoil through removal from structural areas. Topsoil should not be re-used as structural fill but rather as surface cover to promote vegetation growth.

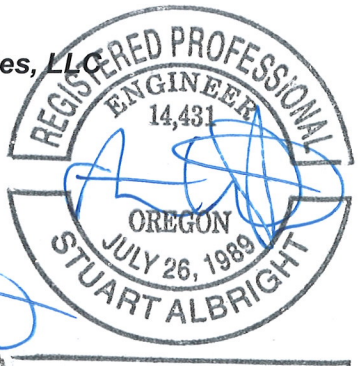
In general, fills should be limited to no more than two feet in thickness. During dry weather, structural fills may consist of virtually any relatively well-graded soil that is free of debris, organic matter, and high percentages of clay or clay lumps, and that can be compacted to the specifications listed below. However, if excess moisture causes the fill to pump or weave, those areas should be dried and re-compacted or removed and backfilled with compacted granular fill. In order to achieve adequate compaction during wet weather, or if proper moisture content cannot be achieved by drying, we recommend that fills consist of well-graded granular soils (sand or sand and gravel) that do not contain more than 5 percent material by weight passing the No. 200 sieve. In addition, it is usually desirable to limit this material to a maximum 6 inches in diameter for ease of compaction and future installation of utilities.

Fill Compaction Standards. Recommended compaction specifications should be based upon ASTM D 1557 (or AASHTO T-180) moisture density relationships. Compaction of fine-grained soils (native silt) to acceptable density levels during the wet season will be very difficult. If wet weather grading is attempted structural fill should consist of imported, clean, granular material.

CLOSING

This report presented Apex Companies, LLC's geotechnical engineering evaluation and recommendations for the proposed project. We trust that this report meets your needs. If you have any questions, if we can be of further assistance, or if we may provide any additional information or clarification of this project, please call. We look forward to working with you in the future.

Sincerely,
Apex Companies, LLC



Stuart Albright, P.E. EXPIRES 12/31/15
Principal Geotechnical Engineer

Adam Reese, C.E.G.
Associate Engineering Geologist

Note: Base map prepared from USGS 7.5-minute quadrangle of Lake Oswego, OR, dated 2014 as provided by USGS.gov.

0 2,000 4,000

Approximate Scale in Feet

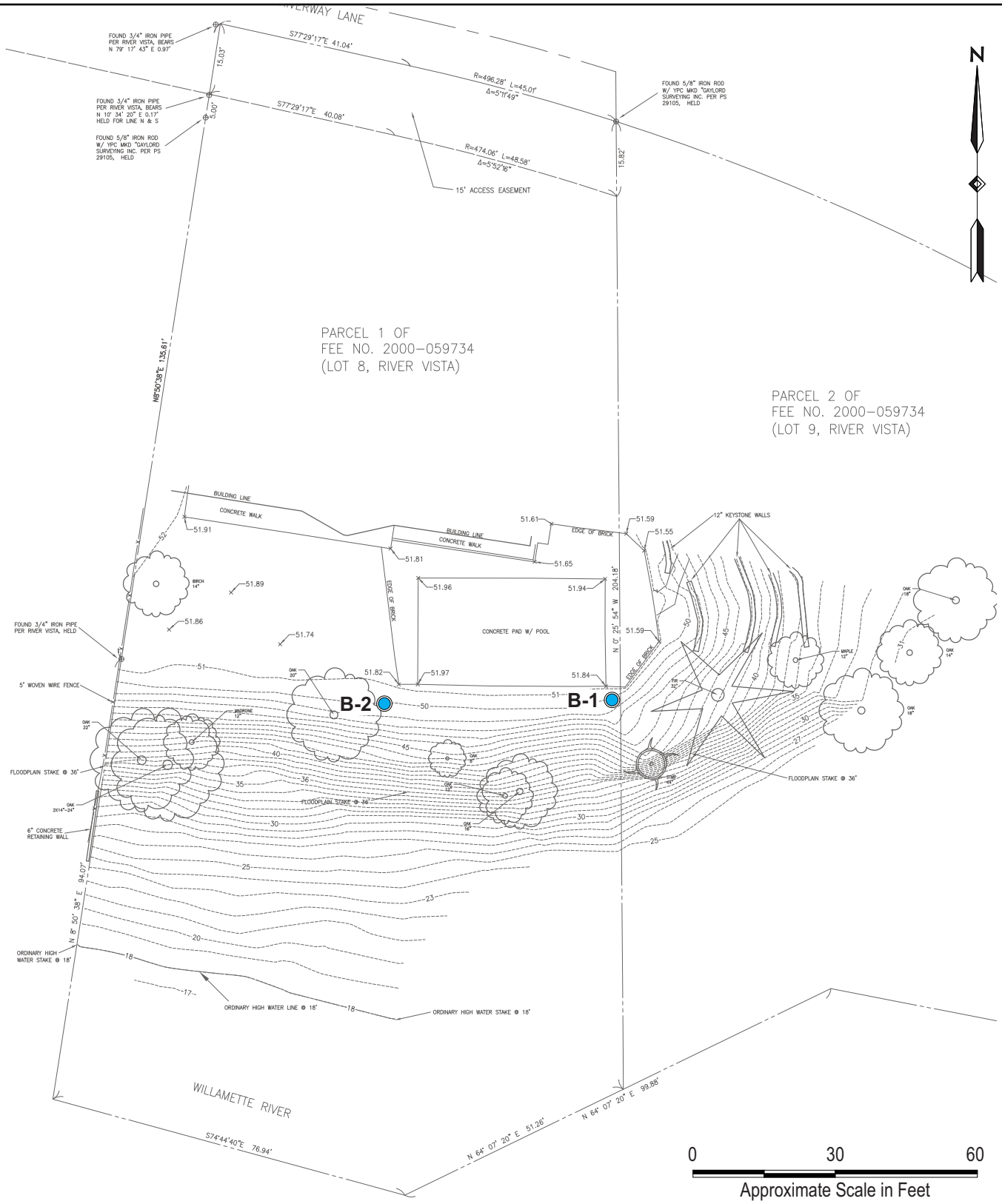
N

Site Location Map

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number	2200-00	Figure
January 2015		1



Legend:

B-1 Boring Location

NOTE: Base map prepared from a Klein Property Topo. Survey from OTAK (January 2015).

Site Exploration Plan

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Apex Companies, LLC 3015 SW First Avenue Portland, Oregon 97201	Project Number	2200-00	Figure 2
	January 2015		

Sample Descriptions

Classification of soils in this report is based on visual field and laboratory observations which include density/consistency, moisture condition, and grain size, and should not be construed to imply field nor laboratory testing unless presented herein. Visual-manual classification methods of ASTM D 2488 were used as an identification guide.

Soil descriptions consist of the following:
MAJOR CONSTITUENT with additional remarks; color, moisture, minor constituents, density/consistency.

Density/Consistency

Soil density/consistency in borings is related primarily to the Standard Penetration Resistance. Soil density/consistency in test pits and Geoprobe® explorations is estimated based on visual observation and is presented parenthetically on test pit and Geoprobe® exploration logs.

SAND and GRAVEL Density	Standard Penetration Resistance in Blows/Foot
Very loose	0 - 4
Loose	4 - 10
Medium dense	10 - 30
Dense	30 - 50
Very dense	>50

SILT or CLAY Density	Standard Penetration Resistance in Blows/Foot
Very soft	0 - 2
Soft	2 - 4
Medium stiff	4 - 8
Stiff	8 - 15
Very Stiff	15 - 30
Hard	>30

Moisture

Dry	Little perceptible moisture.
Sl. Moist	Some perceptible moisture, probably below optimum.
Moist	Probably near optimum moisture content.
Wet	Much perceptible moisture, probably above optimum.

Minor Constituents

	Estimated Percentage
Not identified in description	0 - 5
Slightly (clayey, silty, etc.)	5 - 12
Clayey, silty, sandy, gravelly	12 - 30
Very (clayey, silty, etc.)	30 - 50

Sampling Symbols

BORING AND PUSH-PROBE SYMBOLS

- Split Spoon
- Sonic
- Tube (Shelby, Push-Probe)
- Cuttings
- Core Run
- * No Sample Recovery
- SSA Solid Stem Auger
- HSA Hollow Stem Auger
- MR Mud Rotary

TEST PIT SOIL SAMPLES

- Grab
- Bag
- Shelby Tube

Key to Exploration Logs

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Project Number 2200-00

January 2015

Figure Key

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Boring Number: **B-1**

Project Number: **2200-00**
Logged By: J. Mattecheck
Date: January 22, 2015
Site Conditions: --
Drilling Contractor: Dan J. Fisher Excavation
Drilling Equipment: Limited Access (Big Beaver)
Sampler Type: SSA
Depth to Water (ATD): --
Surface Elevation: --

▲ Standard Penetration Resistance
(Blows per Foot)

Depth, feet	Sample ID	Sample	Lithologic Description
			Surface organics (grass) over Topsoil
			Silty CLAY (Fill); light brown, slightly moist, trace organics, medium stiff.
5			SILT; gray, dry, with trace fine-grained sand, medium stiff.
			SAND with silt; light brown, dry, loose.
10			SAND with gravel; light brown, dry, medium dense.
			Becomes grayish-brown.
15			Poorly-graded fine SAND with silt; light brown, dry, medium dense.
20			Well-graded, sub-rounded to angular GRAVEL/COBBLES; gray, dry, with trace silt, very dense.
25			Boring Refusal at 24.5' BGS. No Groundwater or Seepage Encountered.
30			
35			

Apex Companies, LLC
3015 SW First Avenue
Portland, Oregon 97201

Geologic and Geotechnical Engineering Evaluation
Klein Point
Milwaukie, Oregon

Boring Number: **B-2**

Project Number: **2200-00**
Logged By: J. Mattecheck
Date: January 22, 2015
Site Conditions: --
Drilling Contractor: Dan J. Fisher Excavation
Drilling Equipment: Limited Access (Big Beaver)
Sampler Type: SSA
Depth to Water (ATD): --
Surface Elevation: --

▲ Standard Penetration Resistance
(Blows per Foot)
10 20 30 40

Depth, feet	Sample ID	Sample	Lithologic Description
			Surface organics (grass) over Topsoil
			Silty CLAY (Fill); light brown, slightly moist, with trace organics, soft.
5		☒	SILT; gray, dry, with trace fine-grained sand, stiff.
10		☒	SAND; grayish-brown, dry, with trace silt, stiff.
			Drilling resistance due to gravel or other obstruction.
15		☒	SAND with gravel; light gray, dry, dense.
		☒	
20		☒	Well-graded sub-rounded to angular GRAVEL/COBBLES; light gray, dry, very dense.
		☒	
25			Boring Refusal at 24.0' BGS. No Groundwater or Seepage Encountered.
30			
35			

RIVERWAY LANE

PEDESTRIAN ACCESS THROUGH SIDE YARD

STAGING AREA

MACHINERY ACCESS ALONG EXISTING ROAD (SEE INSET)

WILLAMETTE RIVER

OHW

BUILDING LINE

CONCRETE WALK

EDGE OF BRICK

CONCRETE PAD W/ POOL

12' KEYSTONE WALLS

WOVEN WIRE FENCE

6" CONCRETE RETAINING WALL

30' 0' 30' 60'

SCALE IN FEET

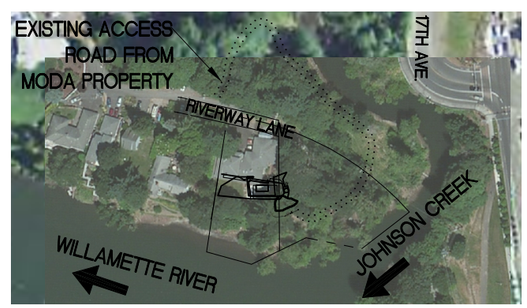
EROSION CONTROL LEGEND

- PROPERTY LINE
- MAJOR CONTOUR (10') – EXISTING
- MINOR CONTOUR (2') – EXISTING
- 100-YEAR FLOOD
- ORDINARY HIGH WATER
- MAJOR CONTOUR (10)' – PROPOSED
- MINOR CONTOUR (2') – PROPOSED
- HIGH-VISIBILITY FENCE
- SEDIMENT FENCE
- WATTLES
- FLOW DIRECTION

- EXISTING TREE (DECIDUOUS)
- EXISTING TREE (CONIFEROUS)
- EXISTING POOL AND PATIO
- EXISTING BRICK PATIO
- PROPOSED DECK (APPROX.)
- PROPOSED POOL (APPROX.)
- BIODEGRADABLE EROSION CONTROL MATTING
- PERMANENT DISTURBANCE MITIGATION AREA 578 SQ. FT.
- BUFFER MITIGATION AREA – 600 SQ. FT.

SEQUENCE OF EROSION CONTROL NOTES

1. INSTALL HIGH-VISIBILITY FENCE
2. PROTECT EXISTING VEGETATION (FOR DETAILS, SEE SHEET EC02).
3. INSTALL SEDIMENT FENCE (FOR DETAILS, SEE SHEET EC02).
4. REMOVE EXISTING POOL AND PATIO. CONSTRUCT NEW POOL. USE PLASTIC SHEETING TO COVER EXPOSED SOILS. DIRECT FLOWS TO EXISTING POOL.
5. GRADE AT APPROX. 1.5H:1V SLOPE, MATCHING EXISTING GROUND AT GRADING LIMITS. INSTALL BIODEGRADABLE EROSION CONTROL MATTING (FOR DETAILS, SEE SHEET EC02) AND APPLY SEEDING.
6. INSTALL WATTLES (FOR DETAILS, SEE SHEET EC02).
7. PERMANENTLY STABILIZE WITH NATIVE TREES, SHRUBS, AND GROUNDCOVER (FOR DETAILS, SEE MITIGATION AND BUFFER PLAN).
8. CONSTRUCT NEW POOL AND WOOD DECK. REMOVE TEMPORARY EROSION CONTROL MEASURES. RESTORE ACCESS ROAD WITH NATIVE EROSION CONTROL GRASS SEED MIX.



NO.	DATE	BY	REVISION COMMENTS	Date
Design	MCM			Initial Issue Date:
Drawn	MCM			February, 2015
Checked	KJT			

NOT FOR CONSTRUCTION

Not for Construction
Preliminary Only

KLEIN PROPERTY SLOPE STABILIZATION
EROSION AND SEDIMENT CONTROL PLAN
Site Plan

otak
HanmiGlobal Partner
808 SW 3RD Ave., Suite 300
Portland, OR 97204
Phone: (503) 287-6825
Fax: (503) 415-2304
www.otak.com

17347
Project No. Drawing No.
EC01
Sheet No.

Plotted: Aug 14, 2015 – 8:06am melaniem L:\Project\17300\17347\Dwg\EC01-EC03.dwg Layout Name: EC01

STANDARD EROSION AND SEDIMENT CONTROL PLAN DRAWING NOTES

1. WHEN RAINFALL AND RUNOFF OCCURS DAILY INSPECTIONS OF THE EROSION AND SEDIMENT CONTROLS AND DISCHARGE OUTFALLS MUST BE PROVIDED BY SOME ONE KNOWLEDGEABLE AND EXPERIENCED IN THE PRINCIPLES, PRACTICES, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS WHO WORKS FOR THE PERMITTEE.

2. CONSTRUCTION ACTIVITIES MUST AVOID OR MINIMIZE EXCAVATION AND CREATION OF BARE GROUND FROM OCTOBER 1 THROUGH MAY 31 EACH YEAR.

3. DURING WET WEATHER PERIOD, TEMPORARY STABILIZATION OF THE SITE MUST OCCUR AT THE END OF EACH WORK DAY.

4. SEDIMENT CONTROLS MUST BE INSTALLED AND MAINTAINED ON ALL DOWN GRADIENT SIDES OF THE CONSTRUCTION SITE AT ALL TIMES DURING CONSTRUCTION. THEY MUST REMAIN IN PLACE UNTIL PERMANENT VEGETATION OR OTHER PERMANENT COVERING OF EXPOSED SOIL IS ESTABLISHED.

5. ALL ACTIVE INLETS MUST HAVE SEDIMENT CONTROLS INSTALLED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. UNLESS OTHERWISE APPROVED, A SURFACE MOUNTED AND ATTACHABLE, U-SHAPED FILTER BAG IS REQUIRED FOR ALL CURB INLET CATCH BASINS.

6. SIGNIFICANT AMOUNTS OF SEDIMENT WHICH LEAVES THE SITE MUST BE CLEANED UP WITHIN 24 HOURS AND PLACED BACK ON THE SITE AND STABILIZED OR PROPERLY DISPOSED. THE CAUSE OF THE SEDIMENT RELEASE MUST BE FOUND AND PREVENTED FROM CAUSING A RECURRENCE OF THE DISCHARGE WITHIN THE SAME 24 HOURS. ANY IN-STREAM CLEAN UP OF SEDIMENT SHALL BE PREFORMED ACCORDING TO THE OREGON DEPARTMENT OF STATE LANDS REQUIRED TIME FRAME.

7. SEDIMENT MUST NOT BE INTENTIONALLY WASHED INTO STORM SEWERS, DRAINAGE WAYS, OR WATER BODIES.

8. SEDIMENT MUST BE REMOVED FROM BEHIND ALL SEDIMENT CONTROL MEASURES WHEN IT HAS REACHED A HEIGHT OF 1/3RD THE BARRIER HEIGHT, AND PRIOR TO THE CONTROL MEASURES REMOVAL.

9. CLEANING OF ALL STRUCTURES WITH SUMPS MUST OCCUR WHEN THE SEDIMENT RETENTION CAPACITY HAS BEEN REDUCED BY 50% AND AT COMPLETION OF PROJECT.

10. ANY USE OF TOXIC OR OTHER HAZARDOUS MATERIALS MUST INCLUDE PROPER STORAGE, APPLICATION, AND DISPOSAL.

11. THE PERMITTEE MUST PROPERLY MANAGE HAZARDOUS WASTES, USED OILS, CONTAMINATED SOILS, CONCRETE WASTE, SANITARY WASTE, LIQUID WASTE, OR OTHER TOXIC SUBSTANCES DISCOVERED OR GENERATED DURING CONSTRUCTION.

12. THE APPLICATION RATE OF FERTILIZERS USED TO REESTABLISH VEGETATION MUST FOLLOW MANUFACTURER'S RECOMMENDATIONS. NUTRIENT RELEASES FROM FERTILIZERS TO SURFACE WATERS MUST BE MINIMIZED. TIME RELEASE FERTILIZERS SHOULD BE USED AND CARE SHOULD BE MADE IN APPLICATION OF FERTILIZERS WITHIN ANY WATER WAY RIPARIAN ZONE.

13. OWNER OR DESIGNATED PERSON SHALL BE RESPONSIBLE FOR PROPER INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES, IN ACCORDANCE WITH CURRENT CLEAN WATER SERVICES STANDARDS AND STATE, AND FEDERAL REGULATIONS.

14. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BOUNDARIES OF THE CLEARING LIMITS, VEGETATED BUFFERS, AND ANY SENSITIVE AREAS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED IN THE FIELD. UNLESS OTHERWISE APPROVED, NO DISTURBANCE IS PERMITTED BEYOND THE CLEARING LIMITS. THE OWNER/PERMITTEE MUST MAINTAIN THE DELINEATION FOR THE DURATION OF THE PROJECT.
NOTE: VEGETATED CORRIDORS TO BE DELINEATED WITH ORANGE CONSTRUCTION FENCE OR APPROVED EQUAL.

15. PRIOR TO ANY LAND DISTURBING ACTIVITIES, THE BMPS THAT MUST BE INSTALLED ARE GRAVEL CONSTRUCTION ENTRANCE, PERIMETER SEDIMENT CONTROL, AND INLET PROTECTION. THESE BMPS MUST BE MAINTAINED FOR THE DURATION OF THE PROJECT.

16. IF VEGETATIVE SEED MIXES ARE SPECIFIED, SEEDING MUST TAKE PLACE NO LATER THAN SEPTEMBER 1ST; THE TYPE AND PERCENTAGES OF SEED IN THE MIX ARE AS IDENTIFIED ON THE PLANS OR AS SPECIFIED BY THE DESIGN ENGINEER.

17. WATER-TIGHT TRUCKS MUST BE USED TO TRANSPORT SATURATED SOILS FROM THE CONSTRUCTION SITE. AN APPROVED EQUIVALENT IS TO DRAIN THE SOIL ON SITE AT A DESIGNATED LOCATION USING APPROPRIATE BMPS; SOIL MUST BE DRAINED SUFFICIENTLY FOR MINIMAL SPILLAGE.

18. ALL PUMPING OF SEDIMENT LADEN WATER MUST BE DISCHARGED OVER AN UNDISTURBED, PREFERABLY VEGETATED AREA, AND THROUGH A SEDIMENT CONTROL BMP (I.E. FILTER BAG).

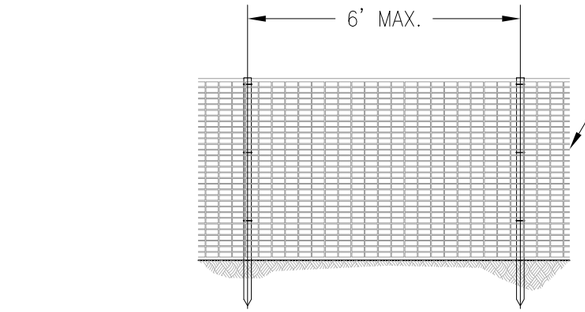
19. THE ESC PLAN MUST BE KEPT ONSITE. ALL MEASURES SHOWN ON THE PLAN MUST BE INSTALLED PROPERLY TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER A SURFACE WATER SYSTEM, ROADWAY, OR OTHER PROPERTIES.

20. THE ESC MEASURES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE MEASURES SHALL BE UPGRADED AS NEEDED TO MAINTAIN COMPLIANCE WITH ALL REGULATIONS.

21. WRITTEN ESC LOGS ARE SUGGESTED TO BE MAINTAINED ONSITE AND AVAILABLE TO DISTRICT INSPECTORS UPON REQUEST.

22. IN AREAS SUBJECT TO WIND EROSION, APPROPRIATE BMPS MUST BE USED WHICH MAY INCLUDE THE APPLICATION OF FINE WATER SPRAYING, PLASTIC SHEETING, MULCHING, OR OTHER APPROVED MEASURES.

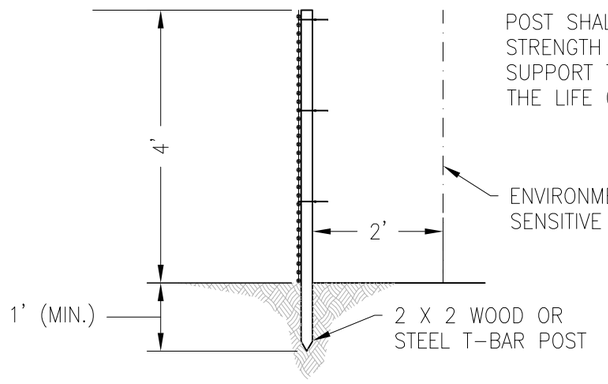
23. ALL EXPOSED SOILS MUST BE COVERED DURING WET WEATHER PERIOD.



ELEVATION

NOTE:

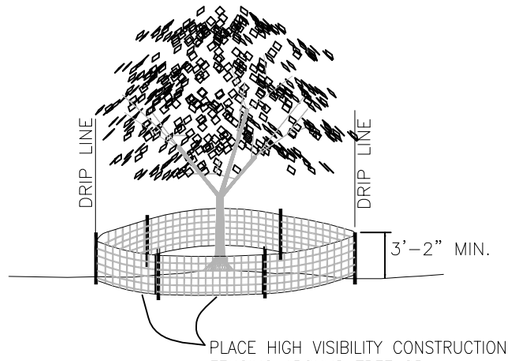
POST SHALL HAVE SUFFICIENT STRENGTH AND DURABILITY TO SUPPORT THE FENCE THROUGH THE LIFE OF THE PROJECT.



TYPICAL SECTION

1 HIGH VISIBILITY FENCE

NTS



NOTES:

1. USE WOOD OR METAL FENCE POSTS. POST SPACING & DEPTH SHALL BE INSTALLED TO ADEQUATELY SUPPORT THE FENCE IN AN UPRIGHT MANNER.
2. MAXIMUM FENCE OPENINGS SHALL BE 2"X2".

2 VEGETATION PROTECTION

NTS

NO.	DATE	BY	REVISION COMMENTS	Date
	Design			Initial Issue Date:
	Drawn	Checked		February, 2015
	MCM	KJT		
	MCM			

NOT FOR CONSTRUCTION

Not for Construction
Preliminary Only

KLEIN PROPERTY SLOPE STABILIZATION

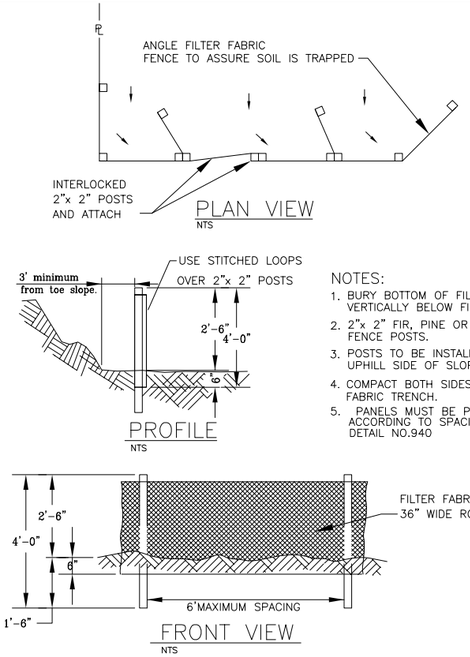
EROSION AND SEDIMENT CONTROL PLAN

General Notes and Details

otak
HanmiGlobal Partner
808 SW 3RD Ave., Suite 300
Portland, OR 97204
Phone: (503) 287-6825
Fax: (503) 415-2304
www.otak.com

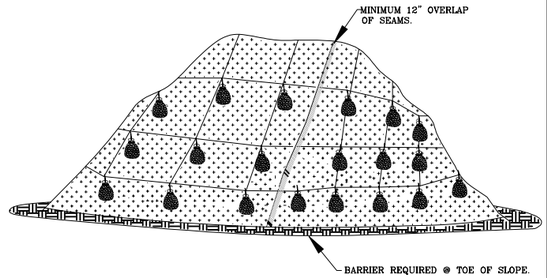
17347
Project No. Drawing No.
EC02
Sheet No.

Plotted: Jun 22, 2015 - 9:14am melaniem L:\Project\17300\17347\Dwg\EC01-EC03.dwg Layout Name: EC02



SEDIMENT FENCE

DETAIL DRAWING 4-23 REVISED 01-09

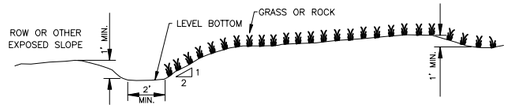


PLASTIC SHEETING

NOTES:
1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
2. BARRIER REQUIRED @ TOE OF STOCK PILE.
3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.

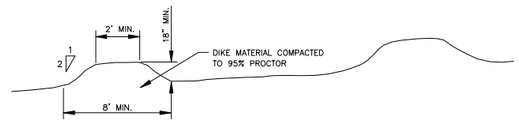
PLASTIC SHEETING

DETAIL DRAWING 4-3 REVISED 01-09



BOTTOM WIDTH	2 FEET MINIMUM; THE BOTTOM WIDTH SHALL BE LEVEL
DEPTH	1 FOOT MINIMUM
SIDE SLOPE	2H:1V OR FLATTER
GRADE	MAXIMUM 5 PERCENT, WITH POSITIVE DRAINAGE TO A SUITABLE OUTLET (SUCH AS SEDIMENTATION POND)

DIVERSION SWALE



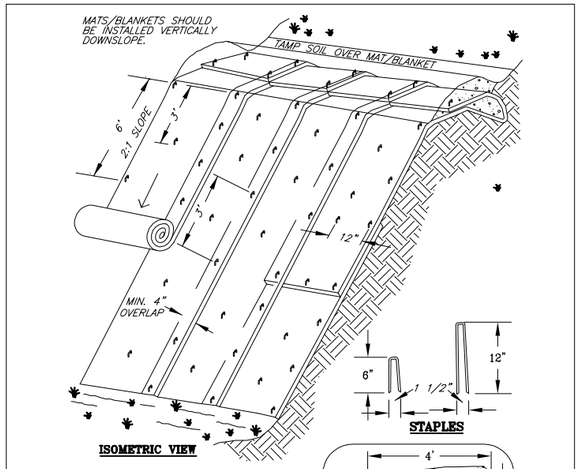
TEMPORARY DIVERSION DIKE

Slope	Spacing
<5%	300 feet
5-10%	200 feet
10-25%	100 feet
25-50%	50 feet

NOTE:
IMMEDIATELY UPON CONSTRUCTION, ESTABLISHED VEGETATION OR EROSION CONTROL BLANKETS ARE REQUIRED.

DIVERSION DIKE / SWALE

DETAIL DRAWING 4-6 REVISED 01-09



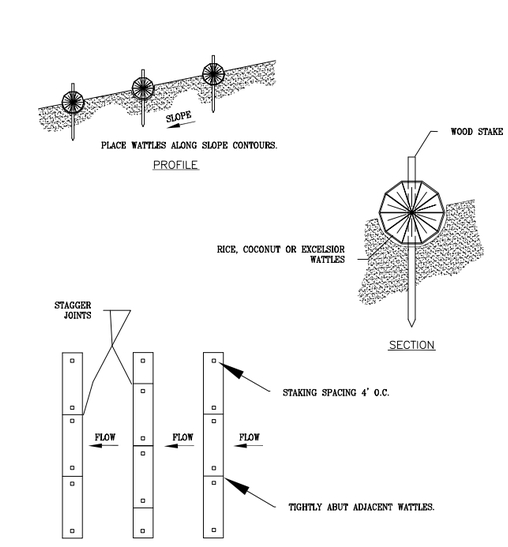
TYPICAL SLOPE SOIL STABILIZATION

NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS,CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
4. STAKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.

FILE: BLNKTSLP

MATTING - SLOPE INSTALLATION

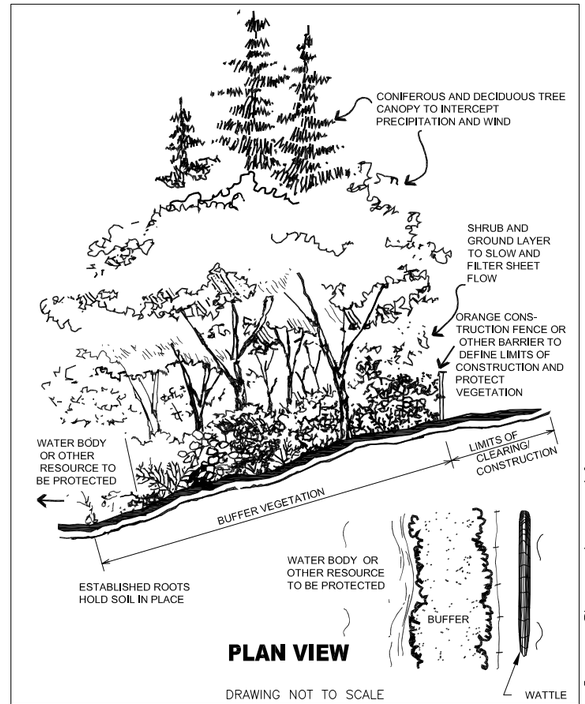
DETAIL DRAWING 4-1 REVISED 01-09



NOTES:
1. STAKING SPECIFICATIONS:
   a. 1"X2" WOODEN STAKES
   b. ADDITIONAL STAKES MAY BE INSTALLED ON DOWNHILL SIDE OF WATTLES, ON STEEP SLOPE OR HIGHLY EROSIVE SOILS.
2. SPACING IN ACCORDANCE WITH DETAIL 940.

WATTLES

DETAIL DRAWING 4-27 REVISED 01-09



PLAN VIEW

DRAWING NOT TO SCALE

EROSION CONTROL MANUAL | VEGETATIVE BUFFER

NO.	DATE	BY	REVISION COMMENTS	Date
	Design MCM			Initial issue Date: February, 2015
	Drawn MCM			
	Checked KJT			

NOT FOR CONSTRUCTION

Not for Construction
Preliminary Only

KLEIN PROPERTY SLOPE STABILIZATION
EROSION AND SEDIMENT CONTROL PLAN
Details

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17347
Project No. Drawing No.
EC03
Sheet No.

Plotted: Jun 22, 2015 - 9:17am melaniem L:\Project\17300\17347\Dwg\EC01-EC03.dwg Layout Name: EC03

Erosion Control Inspection Log

Project Name: _____

Date:_____ Time:_____ Weather:_____ Rainfall In the Last 24 Hours: Yes _____ No _____

Site Active: Yes_____ No_____ Days Since Last Inspection: _____

Inspection Type: Initial Inspection _____ Regular Inspection_____ Final _____ Active Storm Water Runoff_____ Other_____

Observations: _____

_____

_____

_____(More Space on Back)

Corrective Actions Taken/Needed: _____

_____

_____

_____(More Space on Back)

Have Any Changes Been Made to the ESCP: Yes____ No____

If Yes, What Changes Have Been Made: _____

_____

Have The Changes Been Documented: Red Lines: Yes_____ No_____ Action Plan: Yes_____ No_____

Inspected By: Print Name:_____ Title: _____

Signature:_____

Additional Comment Space on Back

Observations: (Continued)

Corrective Actions Taken/Needed: (Continued)

INSPECTION CHECKLIST
FOR
EROSION CONTROL

- **SCHEDULE**

  Have you looked at the Contractors Schedule and determined any conflicts?
  - ✓ Install necessary Best Management Practices (BMP's) prior to any earthwork beginning.
  - ✓ Are earthwork operations being performed in wet weather season with soils that are highly erosive?
  - ✓ Grubbing of areas that will be worked on much later should be delayed
  - ✓ Staging of project may require staging of erosion control measures
  - ✓ Is seeding scheduled before the end of the seed dates?
  - ✓ Are there "In-Stream work areas that may alter contractor's schedule?
  - ✓ When will the contractor remove BMP's?

- **EROSION AND SEDIMENT CONTROL PLAN (ESCP)**
  - ✓ Walk project during preliminary or advanced plan review and look for potential erosion problems
  - ✓ Have you reviewed the Contractor's Erosion Control Plan to determine if it is adequate or makes sense? The ESCP included in the bid package may need modifications to address site conditions or staging
  - ✓ Walk project with PSI prior to any earthwork looking for needed modifications of ESCP
  - ✓ Is the ESCP being kept up-to-date?
  - ✓ Is the ESCP kept on-site? Where?
  - ✓ What is contractor's erosion control plan for offsite borrow sources and waste areas?

- **EROSION AND SEDIMENT CONTROL MANAGER (PSI)**

  Have you met and talked with the person identified as the PSI?
  - ✓ Do you believe this person has adequate knowledge to perform this work?
  - ✓ Does this person understand all the required duties of the PSI?
  - ✓ Does this person have the authority to direct resources and make changes in an emergency situation?

- **SENSITIVE AREAS**

  Are there sensitive areas, which require "extra" attention?
  - ✓ Have they been adequately addressed on the ESCP?
  - ✓ Will these sensitive areas require more monitoring?

- **CONTINGENCY PLAN**
  - ✓ Is there a contingency plan for unexpected events?
  - ✓ What is the plan for stabilization of earthwork performed after seeding dates?

- **MATERIALS ON-HAND**

  It may be difficult to get Erosion Control materials in the middle of the wet season. It is easier to deal with erosion before it happens rather than after.
  - ✓ Does the Contractor have adequate materials on hand to cover each phase of work they plan on performing?

- **MAINTENANCE**
  - ✓ Consider access for maintenance of BMP's. Place where they are easy to maintain if you have a choice
  - ✓ Are installed erosion and sediment controls in good working order?
  - ✓ Are catch basins cleaned out when more than 6 inches of sediment depth accumulates?
  - ✓ At sediment fences, barriers, check dams, inlet protection cleaned out when sediment reaches 1/3 of the storage depth?
  - ✓ Are construction entrances maintained with fresh rock to prevent tracking of sediment onto pavement?

- **MONITORING FORMS**
  - ✓ Are you getting Erosion Control Weekly reports as often as they should be filed from the PSI?
  - ✓ Are the forms complete and adequately represent site conditions and work performed?
  - ✓ Are forms on-site with the "Up-to-Date Plan"?

- **SLOPE PROTECTION & STABILIZATION**
  - ✓ All highly sensitive areas
  - ✓ Permanently finish slopes from top down and seed as you go!
  - ✓ Track walk slopes to provide loosened soil and hold seed
  - ✓ Temporarily stabilize unfinished earthwork scheduled for re-disturbance at a later date (i.e. straw mulch, chemical soil stabilizers, plastic sheeting, matting, etc.)

- **PLANS ARE ONLY A GUIDE**
  What's best for your project is what works on your project. No designer can sit in an office and determine what works on your project. It may require trial and error. The plans are a toolbox with available tools. You may have to create and modify these tools to satisfy the conditions

- **IT'S NOT WORKING!!!**
  Are the BMP's working? If not, are the facilities attempting to prevent erosion before it starts?

- **ADDITIONAL ITEMS**
  - ✓ Go back to newly installed BMP's to check their performance
  - ✓ How will contractor handle dust control or wind erosion?
  - ✓ Will snow melt change runoff and drainage patterns?

ESA VIGIL-AGRIMIS
819 SE Morrison Street
Suite 310
Portland, OR 97214
503.274.2010 phone
503.274.2024 fax
www.vigil-agrimis.com

memorandum

date October 1, 2015

to Brett Kelver, AICP (City of Milwaukie)

from John Vlastelicia

subject Natural Resource Review for Pool Replacement and Bank Stabilization
10795 SE Riverway Lane (Tax Map ID 1S1E35AA, Tax Lot 4400)
Land Use File (master) #NR-2015-003

Thank you for asking ESA Vigil-Agrimis (ESA VA) to assist the City of Milwaukie with natural resource evaluation services for the proposed slope stabilization project located at 10795 SE Riverway Lane. This memorandum summarizes our technical review of land use application materials relating to site natural resources regulated by Milwaukie's Municipal Code, including Habitat Conservation Areas (HCAs), Water Quality Resources (WQRs), and Willamette River Greenway Vegetation Buffers.

This memorandum is formatted to address specific technical review tasks identified by the City in its request for ESA VA services (letter from Brett Kelver to Sarah Hartung, July 29, 2015). The City-requested tasks are identified **in bold**, followed by our responses.

Task 1: Conduct a site visit to assess existing conditions and generally corroborate the figures and narrative provided in the application submittal.

Response: ESA Vigil-Agrimis staff (John Vlastelicia and Ava Laszlo) visited the project site on September 8, 2015. The site visit involved walking the property to assess existing conditions with the applicant's land use application materials in hand. Mr. Gary Klein, the property owner, escorted ESA VA during the site visit, providing information about the site's history, slope erosion, and the proposed approach for slope stabilization. In general, ESA VA observed site conditions consistent with those illustrated on the application figures and in the narrative provided in the application materials. Our observations of site conditions as they relate to habitat, ecological functions, and related approval criteria are presented in the responses to Tasks 2 and 3 of this memorandum. Observations related specifically to the figures and regulated resource boundaries presented in the land use application materials are noted below.

- Figure Scales:

  Discrepancies between observed site distances and distances depicted on certain application figures appear to be due to incorrect scale bars on the following figures:

- Figure 4 (Preliminary HCA Impacts) and Figure 5 (WQR Impacts) of the *Impact Evaluation and Alternatives Analysis Memo*
- Figure 1 (Willamette Greenway Vegetation Buffer Impacts) of the *Mitigation Plan and Vegetation Buffer Plan*

The above-listed figures indicate scales of 1" = 30' on the 11" by 17" drawings. Actual scales are likely closer to 1" = 20', based on the other drawings in the application and known distances from other sources, including tax lot maps.

Assuming impact areas were calculated digitally and correctly (e.g., within CAD drawings), the incorrect scale bars on the listed figures do not impact the overall review of the proposal; however, the City should be aware of these discrepancies and may wish to request revised figures if using any of the above-listed drawings in its staff report or presentation at the public hearing.

- Water Quality Resource (WQR), Greenway Vegetation Buffer, and Habitat Conservation Area (HCA) Boundaries:

WQR – The figures in the revised application include Water Quality Resource (WQR) vegetated corridor boundaries defined as an offset from the Willamette River's estimated ordinary high water (OHW) line. The applicant estimated OHW boundaries as a 2-year recurrence interval flood elevation, which was based on an extrapolation of water levels from available flood profiles for 10-year, 50-year, 100-year, and 500-year floods. ESA VA did not field delineate the OHW level as part of our site visit, but the estimated OHW elevation shown on the figures (18.2' NAVD88) appears to be conservative; that is, field indicators including vegetation transitions and lines of debris wracking suggest that OHW is likely at or below this elevation.

The application figures identify the WQR vegetated corridor to extend 50 feet landward from the OHW boundary. The *Impact Evaluation and Alternatives Analysis Memo* (Otak, 2015) states that the 50-foot buffer was applied based on the fact that slopes adjacent to OHW are less than 25%.

Based on the topographic survey contours presented on the application figures, and on site observations, it is true that the slopes *immediately* adjacent to the estimated OHW line are less than 25%. However, slopes increase moving uphill from OHW, and Footnote #5 of MMC Table 19.402.15 (Determination of WQR Location) prescribes that "to establish the width of the vegetated corridor, slope should be measured in 25-foot increments away from the water feature until the slope is less than 25% (top of ravine)."

Based on the contours and the grading limits presented in the Preliminary Site Plan of the *Type III Land Use Review Application Narrative*, a slope measurement taken between OHW and a point 25 feet in the uphill direction of OHW (in the direction of the proposed grading area) would indicate a slope on the order of just over 25% (~28%). A slope measurement taken between OHW and a point 50 feet in the uphill direction of OHW would indicate a slope in excess of 50%.

Since slopes adjacent to protected water features are used to determine vegetated corridor width, ESA VA recommends that the City consider how the MMC guidance for determining vegetated corridor widths

applies to this site/project. A strict application of Footnote #5 of Table 19.402.15 may suggest that the vegetated corridor boundary needs to extend farther upslope than shown on the application figures. However, regardless of where the WQR vegetated corridor boundary is drawn, it appears that all impact areas are covered by the HCA overlay and therefore the exact location of a WQR boundary may not affect the overall review of the proposal.

Greenway Vegetated Buffer – The application figures identify a boundary for the Greenway Vegetated Buffer as a 25-foot vertical offset from the estimated OHW level. The OHW line is drawn at an elevation of approximately 18 feet (NAVD88), and the upper Greenway Vegetated Buffer boundary line is drawn at an elevation of approximately 43 feet (i.e., 18 ft. + 25 ft. = 43 ft.).

MMC 19.401.8.A states that the Greenway Vegetated Buffer shall "include the land area between the river and a location 25 ft upland from the ordinary high water line". Our experience with Greenway Vegetated Buffer boundaries in other jurisdictions has been that these boundaries are typically defined as horizontal offsets rather than vertical offsets from OHW or top of bank, with the 25-foot distance being a typical minimum horizontal offset. The applicant's presentation of the Greenway Vegetated Buffer boundary likely includes substantially more area within the Greenway Vegetated Buffer than is necessary. An application of a 25-foot horizontal offset to the estimate OHW elevation would place the Greenway Vegetated Buffer boundary at an elevation of approximately 25 feet (based on contours provided on application site plans), which is below the proposed grading and planting for the bank stabilization and pool removal. Because the applicant is proposing mitigation for HCA impacts regardless, it does not appear that the incorrectly drawn Greenway Vegetated Buffer boundary impacts the overall review of the proposal.

HCA: The figures in the application note that the HCA boundaries were provided by the City of Milwaukie in the form of GIS data reflecting the City's Natural Resources (NR) Map. The application includes a Boundary Verification that proposes to exclude existing development from the mapped HCA. The proposed revised HCA shown on the application figures excludes areas occupied by the existing pool, brick patio, and landscaping. This appears to be generally consistent with City guidance provided in the incompleteness letter for the original application submittal (*Incompleteness Letter – Klein Slope Stabilization and Pool Replacement*, Brett Kelver, dated July 29, 2015).

We noted that the revised application does not propose to remove the existing access road that will be used during construction (and which is currently partially vegetated) from the HCA.

Task 2: Within the revised application submittal is an Impact Evaluation and Alternatives Analysis Memo, prepared by Melanie McCandless of Otak, Inc. Review the report and comment on the thoroughness and accuracy of the applicant's responses to the following applicable items:

a. Identification of the ecological functions of riparian habitat on the property

Response: Pages 5 and 6 of the *Impact Evaluation and Alternatives Analysis Memo* identify and briefly address for the proposed grading area each of the water quality/habitat functions and values listed in MMC 19.402.1.C.2. The report's assessment of habitat and functions generally seems reasonable for the proposed

activity. Likely the most substantial riparian habitat impact associated with the proposal is the removal of two mature, standing trees from the proposed slope stabilization area; these trees include a 24-inch diameter oak and a 32-inch diameter Douglas fir. A third tree (an 18-inch diameter oak) that has already fallen is also proposed for removal from the work area, although Mr. Gary Klein (property owner) indicated during the September 8, 2015 site visit that the fallen 18-inch oak tree may remain in place.

The trees provide good habitat structure for insects and terrestrial wildlife, including birds and small mammals. They represent sources of large wood and organic material for the Willamette River floodplain, which benefits fish and other aquatic species. The trees provide some streamflow moderation and water quality benefits through interception of rainfall and water uptake. Also, while the condition and position of the standing trees on the slope presents a risk to slope stability and mass erosion when the trees fall, their root masses and structure are currently providing some soil stabilization function (i.e., erosion of the steepened slope would be worse in the absence of the trees without other plants). The elevation and distance of the trees from typical summer water levels, and the position of the trees on the north side of the river and Johnson Creek, limit the temperature regulation (shade) benefits of the trees.

b. Analysis of alternatives to the proposed development, including an explanation of the rationale behind choosing the alternative selected

Response: The application presents discussions of alternatives within the body of the *Impact Evaluation and Alternatives Analysis Memo* and in an attached *Slope Stabilization Alternatives Memo* dated September 19, 2014. Other materials in the application package, including geotechnical evaluation memoranda, provide further supporting information for understanding the purpose and need of the project (important for any alternatives analysis) and framing the range of alternatives considered.

Three alternatives for addressing the pool and slope stability issues are presented in the application materials: (1) a micropile wall, (2) a rock buttress, and (3) laying back the slope. All three alternatives should be effective with reducing the risk of slope failure and pool movement and would therefore help to meet the project's purpose and need. A "no impact" (i.e. "no action") alternative is also briefly mentioned and discounted due to the fact that it does not address the risk of slope failure and pool movement.

The application supports the rationale for the selected alternative by noting that it will relieve pressures contributing to slope failure (by removing existing pool/trees), reduce grades, and involve revegetating the slope; all of these factors will contribute to a more stable slope than currently exists and therefore they help meet the purpose and need of the project. The micropile wall and rock buttress alternatives would also address the risk of slope failure and pool movement, although neither would remove the pool, leaving in place the structure of immediate concern.

The alternatives analysis does not quantify impacts to HCA or WQR areas for each of the alternatives (for comparison purposes), although it very generally describes some relative differences in terms of slope stabilization, grading, vegetation impacts, and ability to revegetate post-construction. The proposed alternative (laying back the slope) and the micropile wall are both presented as "minimal impact" alternatives. The application does not explicitly identify why the laidback slope alternative is preferable to the micropile wall alternative, although it appears that the laidback slope alternative would have the smallest footprint, when comparing the proposed design with the micropile wall drawings in the 2014 *Slope Stabilization Alternatives Memo.* The laidback slope alternative also has the advantage of removing the structure (pool) of concern and

may require less maintenance or further construction over time, when considering the fact that continued erosion could expose the micropile wall, requiring additional concrete/tiebacks in the future.

Further discussion of the relative impacts of the alternatives on the HCA is provided in the response to Task 3a of this memo.

c. Mitigation plan that ensures the disturbed portions of the HCA will be restored to an equal or better condition

Response: The mitigation proposed by the applicant includes restoring disturbance areas by removing invasive plants and planting native vegetation. Temporary disturbance areas associated with the construction access route will be reseeded with a native grass seed mix when construction is complete, which appears to be appropriate for this already-disturbed corridor (former access road). The permanent disturbance area associated with the bank stabilization grading, as well as a buffer strip adjacent to the grading area, will be densely planted with a mix of native trees, shrubs, and groundcover. The applicant is proposing monitoring and maintenance over a 2-year period to help with plant establishment.

Comments regarding the species selection for the proposed plantings are provided in the response for Task 3 of this memorandum, but the proposed mitigation *approach* generally appears to be reasonable in the context of the site conditions and the proposed impacts. The loss of functions provided by the two mature standing trees that will be removed (decades-old oak and Douglas fir) cannot be immediately replaced through plantings, but the establishment of a multi-layered native plant community within the proposed mitigation area should provide some ecological lift over time and support water quality functions by reducing erosion potential. Aside from the mature trees, the existing vegetation within the proposed disturbance area has limited structural and species diversity and includes invasive species such as Himalayan blackberry and English ivy.

If left undisturbed, the mature trees proposed for removal (particularly the 24-inch oak tree that is leaning heavily) would likely fall in time as a result of natural erosion processes (and gravity). Leaving these trees on-site after their removal to provide habitat structure, organic material, etc. would help to further mitigate the impact of the project disturbance on HCA functions.

Task 3: Evaluate the proposed activity with respect to the three approval criteria established in MMC Subsection 19.402.12.B:

a. **Avoid – The proposed activity will have less detrimental impact to the HCA than other practicable alternatives.**

Response: The application identifies three potential approaches to address the risk of slope failure and pool movement: (1) a micropile wall, (2) a rock buttress, and (3) laying back the slope. Though the application does not quantify impacts to the HCA for each of these alternatives, it appears that of the three alternatives, laying back the slope would result in the least detrimental impact to the HCA for the following reasons:

- The laidback slope alternative appears to have the smallest footprint, and therefore the smallest direct disturbance to HCA in terms of area, of the three alternatives considered. This conclusion takes into account the fact that the laidback slope alternative presented in the 2014 *Slope Stabilization Alternatives Memo* features a much larger grading area than the design that was ultimately proposed in the land use

application. The slope stabilization grading area proposed in the application disturbs approximately 578 square feet of HCA. By comparison, based on the drawings provided in the 2014 *Slope Stabilization Alternatives Memo*, the grading limits for the micropile wall alternative cover approximately 1,700 square feet, and the grading limits for the rock buttress alternative cover over 4,000 square feet.

It is possible that the footprints for the micropile wall and rock buttress alternatives could be reduced through design refinement. However, since both involve protecting the pool and leaving it in place, it does not appear likely that they could be reduced to an extent that would result in less HCA disturbance than the proposed alternative, which removes the pool and involves grading only the steepest segment of the slope.

- The laidback slope is the least "structural" approach and allows the disturbance area to be entirely revegetated following construction, thereby preserving the habitat and water quality functions provided by vegetation. The soil lifts fronting the micropile wall could also be revegetated, although as noted in the application, continued erosion of the slope could expose the concrete wall over time. This could present a need for continued maintenance of the slope to maintain soil and vegetation cover along the face of the wall and/or the need to construct additional concrete wall sections if the ends of the wall become exposed, all of which could result in future HCA disturbance that is difficult to predict.

  The rock buttress would not support the cover and diversity of vegetation of either the laidback slope alternative or the micropile wall alternative.

Because of the steepness of the slope and the position of the pool at the top of the slope, it does not appear that other alternatives (not considered in the application) with less impact to the HCA would be adequate to address the slope stability and pool movement concerns. For example, simply planting additional vegetation or applying other bioengineering measures (e.g., brush mattresses, log placement) to the existing slope without grading may be adequate for some eroding stream banks with lower-gradient slopes and without adjacent structures. However, such measures alone at the project site would not substantially lessen the risk of significant soil movement that could be induced by the weight of the pool and the toppling of the trees on the oversteepened slope.

b. Minimize – Where impacts cannot be avoided, the proposed activity shall minimize detrimental impacts to the extent practicable.

Response: The application identifies a number of impact minimization measures that appear to be consistent with the requirements of 19.402.11.A. Specific measures, including high visibility fencing and erosion and sediment control fencing, matting, and wattles are identified in the Construction Management Plan. The site plans included with the Construction Management Plan do not appear to identify the HCA boundary, but the OHW line, 100-year floodplain boundary, elevation contours, trees, and structures are provided for reference.

c. Mitigate – The proposed mitigation plan demonstrates appropriate and adequate mitigation for adverse impacts to the HCA.

Response: As discussed in the response for Task 2c of this memorandum, the proposed mitigation approach for addressing adverse impacts to the HCA appears to be reasonable and commensurate with the impacts. The mitigation plantings within and immediately adjacent to the proposed grading include 29 trees, 142 shrubs, and

200 groundcover plants, along with an application of native grass seed mix for short-term erosion control. The applicant's planting list consists of plants that are native to the area and which appear on the Portland Plant List.

Many species on the applicant's planting list are common in riparian areas, including riparian areas along Johnson Creek, within its 100-year floodplain. The lower portion of the proposed planting area extends below the 100-year floodplain elevation, but much of the planting area consists of the steep slopes above the 100-year floodplain, which are by comparison relatively dry and are currently dominated by trees that include Douglas fir, oak, maple, and madrone. We would encourage the applicant to consider the landscape position in the plant selection and distribution within the planting area. For example, the proposed planting list includes western flowering dogwood, which has a wetland indicator status of FACW, meaning it is more typically found in wetland areas than upland areas. Also, trees such as Western red cedar and red alder (both of which have a wetland indicator status of FAC) are commonly found in wetter portions of riparian areas closer to streams and may have trouble establishing in drier soils on the upper slopes of the planting area. The remaining trees on the applicant's proposed planting list, which include cascara, madrone, and bitter cherry, appear to be an appropriate species mix for the upper portions of the site.

The mitigation plan does not specify that the trees proposed for removal will remain on-site following their removal. Keeping the trees on-site after they are felled would be an additional measure to mitigate the impact of their removal by preserving the riparian habitat functions they would serve if left to fall naturally over time (e.g., habitat structure, organic material, large wood recruitment potential for the river, etc.). With respect to riparian functions, locating the felled trees within the 100-year floodplain would provide the most benefit.

Again, thank you for asking ESA Vigil-Agrimis to provide natural resources review assistance for the slope stabilization project at 10795 SE Riverway Lane. Please let me know if you have any questions or would like to discuss any of the information presented in this memorandum.

MILWAUKIE
Dogwood City of the West

To: **Planning Commission**

Through: **Dennis Egner, Planning Director**

From: **Li Alligood, Senior Planner**

Date: **October 6, 2015, for October 13, 2015, Public Hearing**

Subject: **File:** ZA-2015-002 – Neighborhood Main Streets Map and Code Amendments

File Types: Zoning Ordinance Map and Text Amendment

Applicant: Dennis Egner, Planning Director, City of Milwaukie

NDA: Ardenwald and Hector-Campbell

ACTION REQUESTED

Recommend City Council approval of application ZA-2015-002 and adoption of the Ordinance found in Attachment 1. This action would allow for the adoption of amendments to the Milwaukie Zoning Map and Milwaukie Zoning Ordinance.

BACKGROUND INFORMATION

The Neighborhood Main Streets code update is the third and final phase of the *Moving Forward Milwaukie: Enhancing Our Commercial Districts* (MFM) project. The draft code amendments are based on recommendations from the 2012 *Neighborhood Main Streets Project*, which was completed by Horizon Planning, a group of graduate planning students from Portland State University. The purpose of the project was to develop a community vision for the commercial areas around 32nd and 42nd Avenues and provide recommendations for solutions to implement the vision.

The PSU project team conducted public outreach through an online community survey, a public open house, a community visioning workshop, and interviews with business owners. The outreach was synthesized into a vision statement for the neighborhood main streets:

> *"In the future, the commercial areas on 32nd and 42nd Avenues in Milwaukie are Neighborhood Main Streets. They are hubs of activity – places where local residents gather to shop, dine, and socialize. Tree-lined streets and attractive storefronts create a pleasant environment, and a mix of small-scale and locally-owned businesses fit in well to their established residential neighborhoods. Connections to these main streets from the surrounding areas allow people to safely and easily reach their destinations whether on foot, by bicyle, or by car."*

The vision also includes three major goals for the neighborhood main streets:

- Goal 1: a vibrant, local economy
  - A variety of locally-owned, small businesses to meet every day shopping and convenience needs for neighborhood residents
  - A few specialty retailers to draw from a larger area
- Goal 2: safe, accessible streets
  - Safe and comfortable pedestrian environment
  - Safe routes for walking, driving, bicycling, and public transportation
  - Adequate parking for businesses (but not too much)
- Goal 3: Neighborhood-scale identity
  - Small-scale businesses oriented toward the "main streets"
  - Gathering places for nearby residents
  - Attractive streetscapes

The 2012 Neighborhood Main Streets Project team prepared a number of recommendations to implement the vision and goals for these areas; the recommendations address policy, land use, economic development, and transportation issues. This project focuses on implementation of the recommended land use revisions:

1. Create a new neighborhood commercial zone with uses that are specific to Milwaukie's small-scale commercial areas
2. Establish development standards in the new commercial zone to ensure that new construction projects are pedestrian-scale
3. Expand the new commercial zone along 42nd and 32nd Avenues

The proposed amendments focus on implementation of the zoning recommendations, with the exception of expanding the new commercial zone. This expansion may be appropriate to implement in the future, when underutilized properties within the existing zone have been repurposed, but expanding the commercial zones would require a policy discussion that is outside of the scope of the Moving Forward Milwaukie project.

In addition to implementing the recommendations of the 2012 Neighborhood Main Streets Project, the proposed amendments reflect input received from the public and the MFM project advisory committee (PAC) during the MFM project. The MFM project team discussed the project recommendations and draft proposals with the Project Advisory Committee (PAC) on April 1, 2015; held a kickoff event to receive feedback from the public on May 6, 2015; discussed the public feedback and direction with the PAC on May 21, 2015; and presented the draft amendments to the public at an open house on June 3, 2015. The Planning Commission reviewed the draft amendments at a worksession on September 8, 2015. The proposed amendments in Attachment 1 have been refined as a result of the feedback received during the public process.

A Measure 56 notice was sent to affected property owners and tenants on September 8, 2015. Notice was posted in public facilities and e-mailed to the Ardenwald, Hector-Campbell, and Lewelling Neighborhood District Association (NDA) board members on September 11, 2015. Notices were sent to properties within 400 ft of the affected properties on September 23, 2015. No comments have been received.

See below for details regarding proposed amendments to the zoning, use standards, development standards, and design standards in these areas.

A. History of Prior Actions and Discussions

- **September 8, 2015:** Staff provided a briefing on the draft zoning map and code amendments to the Planning Commission. The Commission agreed with the proposed amendments, and directed staff to bring the amendments forward for a public hearing.

B. Existing Code History

Commercial zones within the “neighborhood main street” areas of 32nd Ave and 42nd Ave include Limited Commercial (C-L) and General Commercial (C-G). These zones were adopted in 1968. Council adopted minor revisions to the C-L Zone in 1977,[1] and moved single-family dwellings, duplexes, and multifamily dwellings from "outright permitted" to "conditional uses" in response to concerns about development of the limited C-L Zone area with residential rather than commercial uses.

Amendments to the C-G Zone were adopted by the same ordinance, and moved public, institutional, and government uses from "outright permitted" to "conditional uses."

In 2000, Council adopted the King Road Subarea Plan, which set out considerations for zoning map or text amendments for the area zoned C-G, including:

1. A mix of neighborhood scale retail, professional services, eating establishments, and entertainment uses;
2. Development standards that encourage building design and placement that enhances pedestrian access;
3. A mix of housing types;
4. Development standards that ensure adequate parking will be provided; and
5. Incentives for transit oriented development.

The C-L zone is applied to the commercial area of 32nd Ave roughly south of Boyd St and north of Rockwood St. The zoning is primarily applied on the west side of 32nd Ave. Outright permitted uses in the C-L zone are quite limited and include offices, retail, and personal/business service uses.

Development in the C-L and C-G zones is subject to limited development standards that result in suburban development types, and is not subject to design standards.

C. Proposed Amendments

The City is proposing amendments to the zoning, use, development, and design standards applicable to the "neighborhood main street" commercial areas of 32nd and 42nd Avenues to: apply a new mixed-use zone that supports small businesses that meet everyday shopping and convenience needs for neighborhood residents; ensure that new development or significant remodels are pedestrian-friendly in design; and streamline the review process for nonconforming uses, structures, or development. The amendments are intended to implement the vision of the 2012 *Neighborhood Main Streets Project Plan* and

[1] Ordinance #1354, adopted January 17, 1977.

the recommendations of the 2000 King Road Subarea Plan. Generally, permitted uses in the 32nd Ave commercial area will be expanded, and uses in the 42nd Ave commercial area will be revised to reflect the neighborhood service function of the businesses there. A key exception is the Safeway store, which pulls from a larger geographic area but also serves surrounding neighborhoods.

The following is a summary of the key aspects of the proposed amendments for discussion on October 13. See Attachment 1 Exhibits B, C, and D for details.

Changes to Zoning

Key proposals include the following:

- Establish a new Neighborhood Mixed Use Zone NMU with consistent use, development, and design standards for both commercial areas. The proposed NMU Zone would bring the 32nd and 42nd Avenue commercial areas closer together in terms of use allowances and development and design standards. The desired outcome is a vibrant, convenient, attractive, pedestrian-friendly neighborhood commercial area.

Changes to Use Standards

Key proposals include the following:

- Revisions to permitted uses:
  - New uses are limited to 10,000 sq ft; larger uses can be permitted through Type III Conditional Use review. The existing Safeway use will become legally nonconforming.
  - Eating establishments (restaurants or cafes) are now permitted outright in both areas.
- Several new types of uses are added as permitted uses, including:
  - Mixed-use development that include residential uses.
  - Live/work units.
  - Indoor recreation. Currently these uses are permitted in the C-G Zone as Conditional Uses and are not permitted in the C-L Zone.
  - Day care of up to 5,000 sq ft. Currently day care is permitted only as a home occupation or a conditional use.
  - Commercial lodging. This type of lodging includes hotels, motels, and bed and breakfasts.
  - Boarding, lodging, or rooming house.
  - Manufacturing and production which it is associated with, and accessory to, a retail oriented sales or eating/drinking establishment use.
- Several types of uses are added as conditional uses or shifted from permitted to conditionally allowed, including:
  - Standalone residential development that is not part of a mixed use development (single-family, multifamily, etc.)
  - Drinking establishments, such as bars or taverns.

- Vehicle repairs and service. Existing vehicle repair and service businesses will become de facto conditional uses.
- Parking facilities that are not developed to serve a specific use.
- Drive-through facilities (banks, restaurants, gas stations, etc.). Existing drive-through facilities will become legally nonconforming.

- Vehicle sales and rentals will be prohibited in the new NMU Zone. The existing vehicle sales business will become legally nonconforming.

Changes to Development Standards

Key proposals include the following:

- Minimum lot size of 1,500 sq ft (reduced from 5,000 sq ft in the C-L Zone)
- Reduced minimum street frontage of 25 ft
- New minimum floor area ratio (FAR) of 0.5:1
- New maximum setback of 10 ft
- New primary entrance requirements
- Parking must be next to or behind the building (not in front)
- New residential density requirements of 11.6-14.5 dwelling units per acre for residential development permitted through a conditional use review
- Development in the NMU Zone is exempt from the Transition Area Measures of Subsection 19.504.6 when it is separated from a lower-density residential zone (R-10, R-7, or R-5) by a public right-of-way. This exemption will allow development in the 32nd Ave NMU Zone.

Changes to Design Standards

Key proposals include the following:

- Design standards adopted with Central Milwaukie amendments would apply, including requirements for ground floor transparency and pedestrian-friendly design

Changes to Land Use Review Procedures

Key proposals include the following:

- Allowance for a more streamlined review process that allows the alteration or expansion of a nonconforming use, structure, or development that brings the nonconformity closer to compliance to be reviewed through Type II rather than Type III land use review.

KEY ISSUES

Summary

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

A. Is 10,000 sq ft the appropriate maximum size for uses?

Analysis

A. Is 10,000 sq ft the appropriate maximum size for uses?

The 2012 Neighborhood Main Streets project recommended establishing standards that would result in local, small-scale businesses in the "neighborhood main street" commercial areas. The Project Advisory Committee evaluated a number of options for encouraging small-scale businesses and decided on a size limit of 10,000 sq ft per use. Uses larger than 10,000 sq ft would require Type III Conditional Use review and approval by the Planning Commission.

This size limit would affect 1 existing business (Safeway) and could potentially affect 1 existing building (the "blue awning" building at 32nd Ave and Malcolm St). Safeway is approximately 40,000 sq ft in area and the "blue awning" building is approximately 15,000 sq ft. Safeway would become a legally nonconforming use under most size limit scenarios.

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

1. Recommend approval of the proposed Zoning Map and Zoning Ordinance Amendments for the "neighborhood main street" commercial areas. This will result in the application of the Neighborhood Mixed Use Zone NMU to these areas.
2. Recommend adoption of the attached ordinance.

CODE AUTHORITY AND DECISION-MAKING PROCESS

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

- MMC Section 19.902 Amendments to Maps and Ordinances
- MMC Section 19.1008 Type V Review

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

The Commission has 4 decision-making options as follows:

A. Recommend approval of the application subject to the recommended Findings of Approval.

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

C. Recommend denial of the application upon finding that it does not meet approval criteria.

D. Continue the hearing.

This is a legislative review, and there is no date by which a decision must be made.

COMMENTS

Notice of the proposed changes was given to the following agencies and persons: Ardenwald, Hector-Campbell, and Lewelling Neighborhood District Associations (NDAs), Department of Land Conservation and Development (DLCD), Metro, all affected property owners and tenants,

and property owners and tenants within 400 ft of the affected properties. The following is a summary of the comments received by the City. See Attachment 2 for further details.

- **Carl S. Jacob, PO Box 22832, Milwaukie, OR 97269:** Suggests including properties east of 44th Ave between King Rd and Harrison St in the new NMU Zone. Concerns about proposed prohibition of vehicle sales and rentals.

  Staff Response: The area east of 44th Ave is zoned R-3, which is a medium density residential zone. Offices and multifamily development are permitted in this zone as conditional uses. Expanding the proposed commercial zoning to a residential zone would require both a Comprehensive Plan map (Medium Density Residential to Commercial) and Zoning Map amendment, and would trigger a traffic impact study and related improvements due to the expected increase in trips that commercially-designated properties generate. The City may wish to identify the funding to undertake this project at a later time.

  Public input indicated that "vehicle sales" was not a desired use in the proposed NMU Zone. However, the existing car dealer can remain in place as long as desired as a nonconforming use.

ATTACHMENTS

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

	PC Packet	Public Copies	E-Packet
1. Draft Ordinance	☒	☒	☒
Exhibit A. Recommended Findings in Support of Approval	☒	☒	☒
Exhibit B. Proposed Map Amendments	☒	☒	☒
Exhibit C. Proposed Code Amendments – Clean Version	☒	☒	☒
Exhibit D. Proposed Code Amendments – Underline/Strikeout Version	☒	☒	☒
2. Comments Received	☒	☒	☒

Key:

Early PC Mailing = paper materials provided to Planning Commission at the time of public notice 20 days prior to the hearing.

PC Packet = paper materials provided to Planning Commission 7 days prior to the hearing.

Public Copies = paper copies of the packet available for review at City facilities and at the Planning Commission meeting.

E-Packet = packet materials available online at http://www.milwaukieoregon.gov/planning/planning-commission-135.

CITY OF MILWAUKIE
"Dogwood City of the West"

Ordinance No.

AN ORDINANCE OF THE CITY OF MILWAUKIE, OREGON, AMENDING THE MILWAUKIE MUNICIPAL CODE (TITLES 14 SIGNS AND 19 ZONING), AND AMENDING THE ZONING MAP (FILE #ZA-2015-002).

WHEREAS, it is the intent of the City of Milwaukie to support neighborhood-serving small businesses and pedestrian-scale development in the "neighborhood main streets" of 32nd and 42nd Avenues; and

WHEREAS, the City Council approved Resolution 53-2013 to execute an intergovernmental agreement with Metro's Construction Excise Tax grant program to provide resources to the City to encourage appropriate development in these areas; and

WHEREAS, the *Neighborhood Main Streets* and *Moving Forward Milwaukie: Enhancing Our Commercial Districts* projects have identified zoning code and map revisions to encourage small businesses and pedestrian-scale development in these areas; and

WHEREAS, all affected property owners and tenants were notified of the amendments and opportunity for public input has been provided at multiple public meetings and through the City website; and

WHEREAS, the City has prepared amendments to the Municipal Code and Zoning Map that will result in updated use, development and design standards that reflect the community's vision for future development in the "neighborhood main street" commercial areas; and

WHEREAS, the proposed amendments have been processed pursuant to a Type V Legislative Review per Milwaukie Municipal Code Section 19.1008, with notice provided per the requirements of the Milwaukie Municipal Code and Oregon Revised Statutes, and with duly advertised public hearings on the proposed amendments before the Planning Commission and City Council; and

Now, Therefore, the City of Milwaukie does ordain as follows:

Section 1. Findings. Findings of fact in support of the amendments are adopted by the City Council and are attached as Exhibit A.

Section 2. Amendments. The Milwaukie Municipal Code is amended as described in Exhibit B (Titles 14 and 19 underline/strikeout version), Exhibit C (Titles 14 and 19 underline/strikeout version), and Exhibit D (Zoning Map).

Section 3. Effective Date. The amendments shall become effective 30 days from the date of adoption.

Read the first time on _____, and moved to second reading by _____ vote of the City Council.

Read the second time and adopted by the City Council on _____.

Signed by the Mayor on _____.

Mark Gamba, Mayor

ATTEST:

APPROVED AS TO FORM:
Jordan Ramis PC

Pat DuVal, City Recorder

City Attorney

Recommended Findings in Support of Approval
File #ZA-2015-002, Neighborhood Main Streets Map and Code Amendments

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, the City of Milwaukie, proposes to amend the Zoning Map and various commercial regulations that are contained in Title 14 Sign Ordinance and Title 19 Zoning Ordinance of the Milwaukie Municipal Code (MMC). The land use application file number is ZA-2015-002.

2. The purpose of the proposed code amendments is to encourage appropriately-scaled, pedestrian friendly development and uses in the city's "neighborhood main street" commercial areas. While the proposed amendments are located in several titles of the municipal code, the most substantive amendments are proposed to the following chapters of Title 19:

   - Chapter 19.303 General Mixed Use Zone
   - Chapter 19.500 Supplementary Development Regulations

   Additionally, amendments are proposed to Title 14 to coordinate with the proposed amendments to Title 19.

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

   - MMC Section 19.902 Amendments to Maps and Ordinances
   - MMC Chapter 19.1008 Type V Review

4. MMC Chapter 19.1000 establishes the initiation and review requirements for land use applications. The City Council finds that these requirements have been met as follows.

   a. MMC Subsection 19.1001.6 requires that Type V applications be initiated by the Milwaukie City Council, Planning Commission, Planning Director, or any individual.

      The amendments are proposed by the City of Milwaukie and were initiated by the Planning Director on August 28, 2015.

   b. MMC Section 19.1008 establishes requirements for Type V review. The procedures for Type V Review have been met as follows:

      (1) Subsection 19.1008.3.A.1 requires opportunity for public comment.

      Opportunity for public comment and review has been provided. Staff held a public open house on June 3, 2015, for review of the draft amendments. The Planning Commission has had 1 worksession about the proposed amendments. The draft amendments were sent to members of the project steering committee, for review on May 14, 2015. No public comments have been received.

      (2) Subsection 19.1008.3.A.2 requires notice of public hearing on a Type V Review to be posted on the City website and at City facilities that are open to the public at least 30 days prior to the hearing.

      A notice of the Planning Commission's October 13, 2015, hearing was posted as required on September 11, 2015, at City Hall, Ledding Library, Public Safety Building, and Johnson Creek Facility. A notice of the City Council's _____, 2015, hearing was posted as required on _____, 2015, at the same locations.

(3) Subsection 19.1008.3.A.3 requires notice be sent to individual property owners if the proposal affects a discrete geographic area or specific properties in the City.

The proposed amendments will apply to properties in the 32nd Ave Limited Commercial Zone C-L roughly between Boyd St to the north and Kelvin St to the south; and the 42nd Ave General Commercial Zone C-G between King Rd to the north, 44th Ave to the east, Jackson St to the south, and 1-2 parcels west of 42nd Ave to the west; and specific property owner notice is not required. All affected property owners were notified of the hearing date via the Measure 56 notice (see Finding 4.b.6).

(4) Subsection 19.1008.3.B requires notice of a Type V application be sent to the Department of Land Conservation and Development (DLCD) 35 days prior to the first evidentiary hearing.

The first evidentiary was held on October 13, 2015. Notice of the proposed amendments was sent to DLCD on September 8, 2015.

(5) Subsection 19.1008.3.C requires notice of a Type V application be sent to Metro 45 days prior to the first evidentiary hearing.

The first evidentiary hearing was held on October 13, 2015. Notice of the proposed amendments was sent to Metro on August 28, 2015.

(6) Subsection 19.1008.3.D requires notice to property owners if, in the Planning Director's opinion, the proposed amendments would affect the permissible uses of land for those property owners.

The proposed amendments would affect uses and development on properties in the proposed Neighborhood Mixed Use Zone NMU. The City sent a Measure 56 Notice summarizing the proposal and announcing the date of the first public hearing all property owners in the proposed NMU Zone on September 8, 2015.

(7) Subsection 19.1008.4 and 5 establish the review authority and process for review of a Type V application.

The Planning Commission held a duly advertised public hearing on October 13, 2015, 2015. The City Council held a duly advertised public hearing on _____, 2015.

5. MMC Chapter 19.902 establishes requirements for amendments to the text of the Milwaukie Comprehensive Plan and the Milwaukie Municipal Code. The City Council finds that these requirements have been met as follows.

a. MMC 19.902.5 establishes requirements for amendments to the text of the zoning ordinance. The City Council finds that these requirements have been met as follows.

(1) MMC Subsection 19.902.5.A requires that changes to the text of the land use regulations of the Milwaukie Municipal Code shall be evaluated through a Type V review per Section 19.1008.

The Planning Commission held a duly advertised public hearing on October 13, 2015, 2015. The City Council held a duly advertised public hearing on _____, 2015. Public notice was provided in accordance with MMC Subsection 19.1008.3.

(2) MMC Subsection 19.902.5.B establishes the approval criteria for changes to land use regulations of the Milwaukie Municipal Code.

(a) MMC Subsection 19.905.B.1 requires that the proposed amendment be consistent with other provisions of the Milwaukie Municipal Code.

The proposed amendments to expand the permitted uses and establish pedestrian-friendly development and design standards for new development and significant renovations in the proposed NMU Zone do not conflict with any provision of the Milwaukie Municipal Code. All other code provisions remain effective and can be enforced..

(b) MMC Subsection 19.902.5.B.2 requires that the proposed amendment be consistent with the goals and policies of the Comprehensive Plan.

The proposed amendments are consistent with the relevant goals and policies of the MCP, which are contained in Chapter 4: Land Use.

Economic Base and Industrial/Commercial Land Use Element

- *Objective #9, Policy 3*

  This policy establishes protections for residential areas adjacent to commercial areas. The proposed land use changes will not change the existing transition area measures, which provide adequate visual buffers to adjacent residential areas, including devices such as landscaping and fencing.

Neighborhood Element

- *Objective #2, Neighborhood Area 2, Guideline #4*

  This policy supports the rehabilitation of existing buildings in the existing 32nd Ave C-L Zone area. The proposed amendments will provide additional flexibility for property and business owners, which could encourage rehabilitation of currently vacant buildings.

- *Objective #3, Policy 6*

  This policy recommends zoning regulations to support the King Road Neighborhood Center vision to encourage land uses that will enhance its value as a commercial and residential neighborhood center. These recommendations include a mix neighborhood scale uses, pedestrian-friendly development standards, and a mix of housing types. The proposed amendments establish pedestrian-friendly development and design standards and allow housing as part of mixed-use development, as well as single-family and multifamily development as conditional uses.

(c) MMC Subsection 19.902.5.B.3 requires that the proposed amendment be consistent with the Metro Urban Growth Management Functional Plan and relevant regional policies.

The Urban Growth Management Functional Plan is Section 3.07 of the Metro Code. The plan provides tools to meet goals of the 2040 Growth Concept, Metro's long-range growth management plan for the Portland metropolitan area. The proposed amendments are consistent with Functional Plan and relevant regional policies, which are contained in Title 1and Title 8.

- *Title 1: Requirements for Housing and Employment Accommodation*

The proposed amendments would not change the City's housing capacity or the region's employment capacity. The new NMU zone replaces a commercial-only zone and allows mixed-use development (commercial and residential) and live/work units, which has the effect of increasing the City's housing capacity.

- *Title 8: Compliance Procedures*

  The City's land use regulations and Comprehensive Plan are in compliance with the Functional Plan. The proposed amendments shall be deemed to comply with the Functional Plan if no appeal to the Land Use Board of Appeals is made within the 21-day period set forth in ORS 197.830(9). As required by MMC Subsection 19.1008.3.C, the City provided notice of the proposed amendments to Metro's Chief Operating Officer at least 45 days prior to the initial evidentiary hearing on the proposed amendments.

  In processing the proposed amendment, the City followed its own requirements for citizen involvement as described in Finding 4.

(d) MMC Subsection 19.902.5.B.4 requires that the proposed amendment be consistent with relevant State statutes and administrative rules, including the Statewide Planning Goals and Transportation Planning Rule.

The proposed amendments were sent to the Department of Land Conservation and Development (DLCD) for comment. The DLCD did not identify any areas where the proposed amendments were inconsistent with State statutes and administrative rules.

Relevant Statewide Planning Goals include Goal 10 Housing. The proposed amendments clarify that standalone residential development in the proposed NMU Zone (including multifamily, rowhouse, and live/work unit development) is subject to the clear and objective multifamily design standards of MMC 19.505.3 Design Standards for Multifamily Housing; 19.505.5 Standards for Rowhouses; and 19.505.6 Design Standards for Live/Work Units.

The proposed amendments are consistent with the Milwaukie Transportation System Plan (TSP), which is in turn consistent with the Regional Transportation Plan (RTP) and the Transportation Planning Rule (TPR). The TSP projects future travel demand based on land uses and projected development. The existing zoning in the proposed NMU Zone areas is commercial, which permits a range of commercial, retail, and office uses. The proposed amendments introduce residential uses, which generate less traffic than currently permitted commercial uses, and do not affect project development patterns or introduce additional traffic generation.

(e) MMC Subsection 19.902.5.B.5 requires that the proposed amendment be consistent with relevant federal regulations.

No federal regulations are relevant to the proposed zoning text amendment.

b. MMC 19.902.5 establishes requirements for amendments to the Zoning Map. The City Council finds that these requirements have been met as follows.

(1) MMC Subsection 19.902.6.A states that changes to the Zoning Map shall be evaluated through either a Type III or a Type V review.

The Zoning Map amendments involve approximately 63 properties and 45.4 acres. The amendments are legislative in nature and subject to Type V review.

The Planning Commission held a duly advertised public hearing on October 13, 2015, 2015. The City Council held a duly advertised public hearing on _____, 2015. Public notice was provided in accordance with MMC Subsection 19.1008.3.

(2) MMC Subsection 19.902.6.B contains approval criteria for changes to the Zoning Map.

(a) The proposed amendment is compatible with the surrounding area based on the following factors:

a. Site location and character of the area.

The NMU Zone areas are commercial in nature and permit a broad range of commercial and office uses. The proposed amendments would retain and enhance the commercial character of the areas while ensuring that new development is attractive and pedestrian-friendly. Both commercial areas are well-served by public transit.

b. Predominant land use pattern and density of the area.

The predominant land use pattern of the NMU Zone areas is medium and large parcels developed with small- and medium-scale buildings. The proposed amendments would encourage a more compact and pedestrian-friendly land use pattern that would complement the surrounding residential areas.

c. Expected changes in the development pattern for the area.

The development pattern for the area is expected to intensify as Milwaukie's high quality of life and affordability continue to attract residents. The NMU Zone will shape this new development so that it supports a pedestrian-friendly commercial district.

(b) The need is demonstrated for uses allowed by the proposed amendment.

The existing regulations of the C-L Zone restrict potential uses, while the C-G Zone allows a broad range of uses that are not appropriate in a neighborhood commercial district. The proposed amendments are intended standardize the regulations and allow a broad range of uses that serve the daily needs of the surrounding neighborhoods. The proposed amendments retain the current mix of uses and add additional uses requested by the community, including live/work units and eating establishments.

(c) The availability is shown of suitable alternative areas with the same or similar zoning designation.

The most suitable area in Milwaukie for the application of the proposed NMU Zone are the "neighborhood main street" commercial areas of 32nd and 42nd Avenues as identified by the 2000 King Road Neighborhood Center Concept and 2012 Neighborhood Main Streets Project. There are

no suitable alternative areas that are intended to serve the daily needs of neighborhood residents.

(d) The subject property and adjacent properties presently have adequate public transportation facilities, public utilities, and services to support the use(s) allowed by the proposed amendment, or such facilities, utilities, and services are proposed or required as a condition of approval for the proposed amendment.

The public transportation facilities, public utilities, and services in the proposed NMU Zone are adequate to support both the current and proposed uses. The proposed amendment does not intensify the development potential of the NMU Zone areas, and the existing level of development intensity has been evaluated by the Transportation System Plan and the Regional Transportation Plan. The proposed amendments introduce residential uses, which have lower demand on infrastructure than commercial uses, and so would not increase the demand on the facilities, utilities, or services in the proposed NMU Zone.

(e) The proposed amendment is consistent with the functional classification, capacity, and level of service of the transportation system. A transportation impact study may be required subject to the provisions of Chapter 19.700.

The proposed amendment does not intensify the development potential of the NMU Zone areas, and the existing level of development intensity has been evaluated by the Transportation System Plan, and a transportation impact study is not required. The proposed amendment may have the effect of reducing vehicle usage in the subject areas through the encouragement of mixed-use development.

(f) The proposed amendment is consistent with the goals and policies of the Comprehensive Plan, including the Land Use Map.

The subject area is designated Commercial C. The proposed amendments are consistent with the relevant goals and policies of the MCP related to commercial uses, which are contained in Chapter 4: Land Use.

<u>Economic Base and Industrial/Commercial Land Use Element</u>

- *Objective #9, Policy 1*

  The proposed NMU Zone will support the continuation of the 42nd and King Rd area as one of the primary commercial areas in the City and provide for the day-to-day shopping needs of City residents.

- *Objective #10, Policy 2*

  Application of the NMU Zone to the "district center" of 42nd and King Rd and the "convenience center" of 32nd Ave will allow the uses and development of each area to support and complement each other.

<u>Neighborhood Element</u>

- *Objective #3, Policy 6*

  This policy recommends zoning regulations to support the King Road Neighborhood Center vision to encourage land uses that will enhance its value as a commercial and residential neighborhood center. The

NMU Zone will allow a range of neighborhood scale uses, pedestrian-friendly development standards, and a mix of housing types. The proposed amendments establish pedestrian-friendly development and design standards and allow housing as part of mixed-use development, as well as single-family and multifamily development as conditional uses.

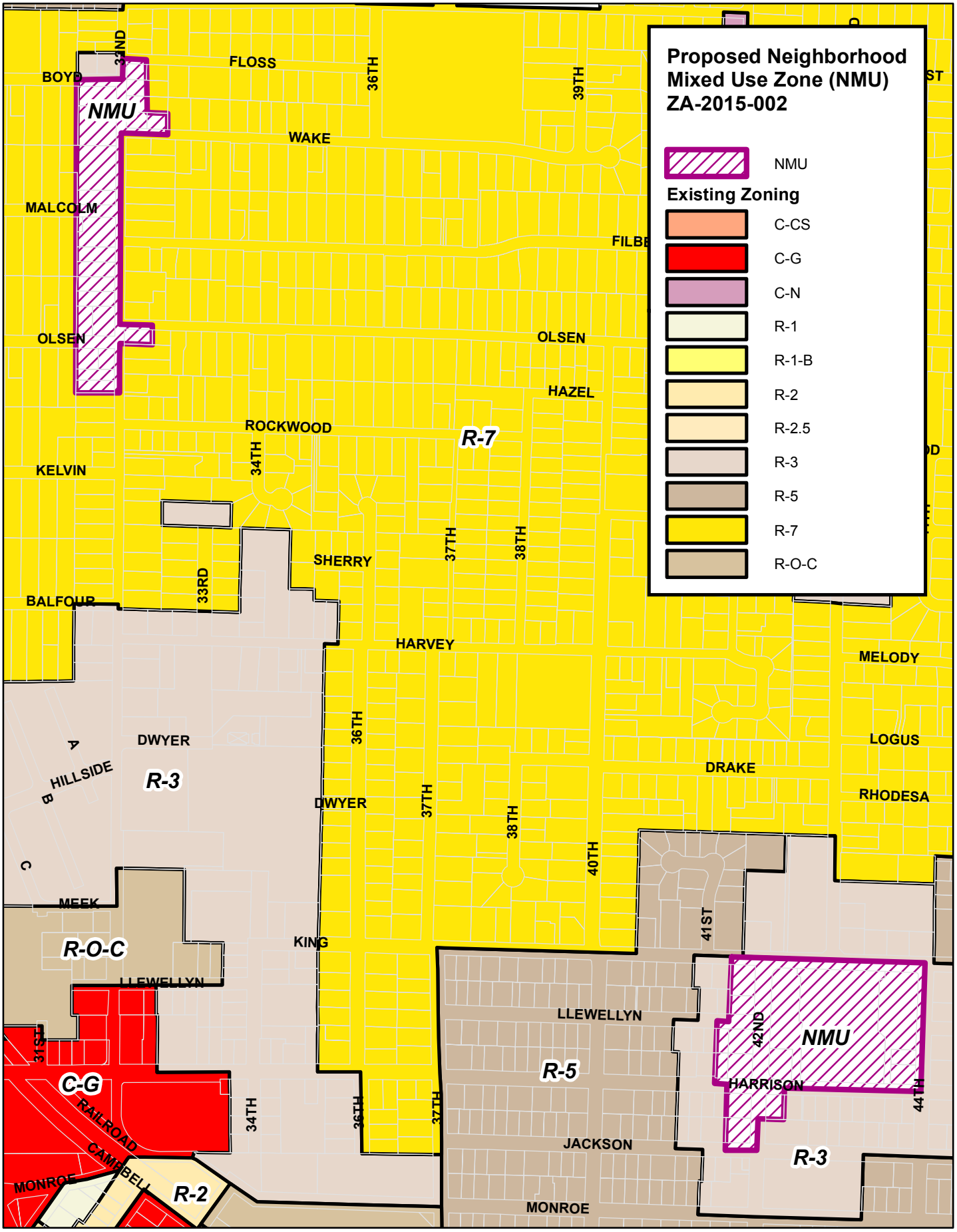
(g) The proposed amendment is consistent with the Metro Urban Growth Management Functional Plan and relevant regional policies.

See Finding 4.c.2.c.

(h) The proposed amendment is consistent with relevant State statutes and administrative rules, including the Statewide Planning Goals and Transportation Planning Rule.

See Finding 4.c.2.d.

Exhibit B


Proposed Neighborhood Mixed Use Zone (NMU)
ZA-2015-002
NMU
Existing Zoning
C-CS
C-G
C-N
R-1
R-1-B
R-2
R-2.5
R-3
R-5
R-7
R-O-C
BOYD
FLOSS
WAKE
MALCOLM
OLSEN
HAZEL
ROCKWOOD
KELVIN
SHERRY
BALFOUR
HARVEY
MELODY
LOGUS
DRAKE
RHODESA
DWYER
HILLSIDE
MEEK
KING
LLEWELLYN
HARRISON
JACKSON
MONROE
CAMPBELL
RAILROAD
33RD
34TH
36TH
37TH
38TH
39TH
40TH
41ST
42ND
44TH
31ST
R-7
R-3
R-O-C
C-G
R-5
R-2

Clean Amendments

Title 14 Signs

*These amendments are based on the adoption of the **Downtown** amendments by Council on September 1, 2015, and the expectation that the **Central Milwaukie** amendments will have been adopted before these **Neighborhood Main Streets** amendments go to the Milwaukie City Council for adoption.*

CHAPTER 14.04 GENERAL PROVISIONS

14.04.030 DEFINITIONS

The following words and phrases where used in this title shall, for the purposes of this title, have the meanings respectively ascribed to them in this section:

"Other commercial zones" means the C-L, Limited Commercial; C-CS, Community Shopping Commercial; GMU, General Mixed Use; NMU, Neighborhood Mixed Use Zone; and C-G, General Commercial, Zones, as defined in the Zoning Ordinance.

CHAPTER 14.16 SIGN DISTRICTS

14.16.040 COMMERCIAL ZONES

No sign shall be installed or maintained in the C-L, C-CS, NMU, and GMU Zones, except as allowed under Section 14.12.010 Exempted Signs, or as otherwise noted in Table 14.16.040.

Table 14.16.040
Standards for Signs in Commercial Zones C-L, C-CS, NMU, and GMU

Title 19 Zoning Ordinance

*These amendments are based on the adoption of the **Downtown** amendments by Council on September 1, 2015, and the expectation that the **Central Milwaukie** amendments will have been adopted before these **Neighborhood Main Streets** amendments go to the Milwaukie City Council for adoption.*

CHAPTER 19.100 INTRODUCTORY PROVISIONS

19.107 ZONING

19.107.1 Zone Classifications

For the purposes of this title, the following base zones and overlay zones are established in the City per Table 19.107.1:

Table 19.107.1
Classification of Zones

Zone Description	Abbreviated Description
Base Zones	
Residential	R-10
Residential	R-7
Residential	R-5
Residential	R-3
Residential	R-2.5
Residential	R-2
Residential	R-1
Residential-Business Office	R-1-B
Downtown Mixed Use	DMU
Open Space	OS
Neighborhood Commercial	C-N
Limited Commercial	C-L
General Commercial	C-G
Community Shopping Commercial	C-CS
Manufacturing	M
Business Industrial	BI
Planned Development	PD
Tacoma Station Area Manufacturing	M-TSA
General Mixed Use	GMU
Neighborhood Mixed Use	NMU
Overlay Zones	
Willamette Greenway	WG
Historic Preservation	HP
Flex Space	FS
Aircraft Landing Facility	LF
Tacoma Station Area	TSA

CHAPTER 19.200 DEFINITIONS AND MEASUREMENTS

19.201 DEFINITIONS

"Transient occupancy" means a period of occupancy that does not exceed 30 days.

CHAPTER 19.300 BASE ZONES

19.303 RESIDENTIAL-OFFICE-COMMERCIAL ZONE R-O-C REPEALED

19.303 COMMERCIAL MIXED-USE ZONES

19.303.1 Purpose

A. The General Mixed Use Zone is intended to recognize the importance of Central Milwaukie as a primary commercial center and promote a mix of uses that will support a lively and economically robust district. It is also intended to ensure high quality urban development that is pedestrian-friendly and complementary to the surrounding area.

B. The Neighborhood Mixed Use Zone is intended to recognize 32nd and 42nd Avenues as neighborhood commercial centers. This zone allows for a mix of small-scale retail and services, along with residential uses, that meet the needs of nearby residents and contribute to a vibrant, local economy. It is also intended to provide a safe and pleasant pedestrian environment while maintaining a neighborhood-scale identity.

19.303.2 Uses

A. Permitted Uses

Uses allowed outright in the commercial mixed-use zones are listed in Table 19.303.2 with a "P." These uses are allowed if they comply with the development and design standards and other regulations of this title.

B. Conditional Uses

Uses listed in Table 19.303.2 as "CU" are permitted only as conditional uses in conformance with Section 19.905.

C. Nonconforming Uses, Structures, and Development

Existing structures and uses that do not meet the standards for the commercial mixed-use zones may continue in existence. Alteration or expansion of a nonconforming use, structure or development that brings the use, structure or development closer to compliance may be allowed through Development Review pursuant to Section 19.906. Alteration or expansion of a nonconforming use or structure that does not bring the use or structure closer to compliance may be allowed through a Type III Variance pursuant to Section 19.911. Except where otherwise stated in this section, the provisions of Chapter 19.800 Nonconforming Uses and Development apply.

D. Prohibited Uses

Uses not listed in Table 19.303.2, and not considered accessory or similar pursuant to (E) and (G) below, are prohibited. Uses listed with an “N” in Table 19.303.2 are also prohibited.

E. Accessory Uses

Uses that are accessory to a primary use are allowed if they comply with all development standards.

F. Drive-Through Uses

For the purpose of this section, drive-through uses are not considered an accessory use and must be approved through a conditional use review in the NMU Zone in conformance with Section 19.905. Drive-through facilities must also conform to Section 19.606.3.

G. Similar Uses

The Planning Director, through a Type I review, may determine that a use that is not listed is considered similar to an example use listed in Table 19.303.2. The unlisted use shall be subject to the standards applicable to the similar example use.

Table 19.303.2
Commercial Mixed Use Zones Uses

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 **Section 19.905** Conditional Uses
Multifamily	P	CU	**Subsection 19.505.3** Multifamily Housing **Section 19.905** Conditional Uses
Mixed use[2]	P	P	**Subsection 19.505.6** Nonresidential Development
Live/work units	P	P	**Subsection 19.505.6** Live/Work Units
Senior and retirement housing	P	CU	**Subsection 19.505.3** Multifamily Housing **Section 19.905** Conditional Uses
Accessory dwelling units	N	CU	**Section 19.905** Conditional Uses **Subsection 19.910.1** Accessory Dwelling Units
Commercial[3]			
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, brokerage houses, bank or credit unions; real estate agents; sales offices; government offices and public utility offices; and medical and dental clinics.	P	P	
Indoor recreation. Indoor recreation consists of facilities providing active recreational uses of a primarily indoor nature. Examples include: gyms, dance studios, tennis, racquetball and soccer centers, recreational centers, skating rinks, bowling alleys, arcades, shooting ranges, and movie theaters.	P	P	

Proposed Code Amendment

Retail-oriented sales. Sales-oriented retail firms are involved in the sale, leasing, and rental of new or used products to the general public. Examples include: stores selling, leasing, or renting consumer, home, and business goods including art, art supplies, bicycles, clothing, dry goods, electronics, fabric, gifts, groceries, hardware, household products, jewelry, pets and pet products, pharmaceuticals, plants, printed materials, stationery, and printed and electronic media.	P	P	
Drinking establishments. Drinking establishments primarily involve the sale of alcoholic beverages for consumption on-site. Examples include: tavern, bar, or cocktail lounge.	P	CU	**Section 19.905** Conditional Uses
Eating establishments. Eating establishments primarily involve the sale of prepared food and beverages for consumption on-site or take-away. Eating establishments may include incidental sales of alcoholic beverages. Examples include: restaurants, delicatessens, retail bakeries, coffee shops, concession stands, and espresso bars.	P	P	
Medical marijuana facility.[4] Medical marijuana facility means a business that dispenses medical marijuana in accordance with the regulations set forth by ORS Chapter 475 and related Oregon Administrative Rules. State-registered grow sites are not considered to be medical marijuana facilities and are not permitted under the City of Milwaukie's medical marijuana facility regulations.	P	P	**Subsection 19.303.6** Standards for Medical Marijuana Facilities
Vehicle sales and rentals. Vehicle sales and rentals means a business that sells or leases consumer vehicles including passenger vehicles, motorcycles, light and medium trucks, boats and other recreational vehicles.	P	N	
Personal service oriented. Personal service oriented firms are involved in providing consumer services. Examples include: hair, tanning and spa services, pet grooming, photo and laundry drop-off, dry cleaners, and quick printing.	P	P	

Repair-oriented. Repair-oriented uses are establishments providing product repair of consumer and business goods. Examples include: repair of televisions and radios, bicycles, clocks, jewelry, guns, small appliances, office equipment, tailors and seamstresses, shoe repair, locksmiths, and upholsterers	P	P	
Vehicle repair and service.[5] Firms servicing passenger vehicles, light and medium trucks and other consumer motor vehicles such as motorcycles, boats and recreational vehicles. Also includes quick-servicing activities where the driver generally waits in the car before and while the service is performed. Examples include gas stations, quick oil change shops, car washes, vehicle repair, transmission or muffler shop, auto body shop, alignment shop, auto upholstery shop, auto detailing, and tire sales and mounting.	P	CU	**Section 19.905** Conditional Uses
Day care.[6] Day Care is the provision of regular child care, with or without compensation, to four or more children by a person or person(s) who are not the child's parent, guardian, or person acting in place of the parent, in a facility meeting all state requirements. Examples include: nursery schools, before-and-after school care facilities, and child development centers.	P	P	
Commercial lodging. Commercial Lodging includes for-profit residential facilities where tenancy is typically less than one month. Examples include: hotels, motels, and bed-and-breakfast establishments. Does not include senior and retirement housing.	P	P	
Boarding, lodging, or rooming house. Generally means a private home where lodgers rent one or more rooms for one or more nights, and sometimes for extended periods of weeks, months, and years. The common parts of the house are maintained, and some services, such as laundry and cleaning, may be supplied. Examples include: Boarding house and cooperative housing	CU	CU	**Section 19.905** Conditional Uses

Proposed Code Amendment

~~**Commercial**~~ **Parking facility.** Parking facilities provide parking that is not accessory to a specific use. A fee may or may not be charged. A facility that provides both accessory parking for a specific use and regular fee parking for people not connected to the use is also classified as a Commercial Parking facility. Examples include structured parking, short- and long-term fee parking facilities, commercial district shared parking lots and commercial shuttle parking.	CU	CU	**Section 19.611** Parking Structures
Manufacturing and Production			
Manufacturing and production.[7] Uses are involved in the manufacturing, processing, fabrication, packaging, or assembly of goods. Natural, man-made, raw, secondary, or partially completed materials may be used. Examples include processing of food and related products; catering establishments; breweries, distilleries, and wineries; weaving or production of textiles or apparel; woodworking, including cabinet makers; manufacture or assembly of machinery, equipment, instruments, including musical instruments, vehicles, appliances, precision items, and other electrical items; and production of artwork and toys.	P	P	
Institutional			
Community service uses	CSU	CSU	**Section 19.904** Community Service Uses

P = Permitted.

N = Not permitted

CSU = Permitted with Community Service Use approval subject to provisions of Section 19.904. Type III review required to establish a new CSU or for major modification of an existing CSU. Type I review required for a minor modification of an existing CSU.

CU = Permitted with conditional use approval subject to the provisions of Section 19.905. Type III review required to establish a new CU or for major modification of an existing CU. Type I review required for a minor modification of an existing CU.

1. The limit of 4 consecutive row houses established in 19.505.5 does not apply in the GMU zone. In the GMU zone, there is no limit on the number of consecutive row houses.
2. Residential uses built as part of a vertical mixed-use building are not subject to conditional use review in the NMU Zone.
3. In the NMU Zone, unless otherwise specified in this section, all non-residential uses listed in Table 19.303.2 shall be no greater than 10,000 square feet in area per use. A non-residential use greater than 10,000 square feet in area may be approved through a conditional use review pursuant to Section 19.905.
4. Medical marijuana facilities shall meet the following standards:
   a. As set forth by Oregon Administrative Rules, a medical marijuana facility shall not be located within 1,000 ft of the real property comprising a public or private elementary, secondary, or career school attended primarily by minors or within 1,000 ft of another medical marijuana facility.
   b. A medical marijuana facility shall not be co-located with another business.
   c. Display of marijuana or marijuana products that are visible from outside of the facility is prohibited.

d, The hours of operation for medical marijuana facilities shall be limited to the hours between 8:00 a.m. and 10:00 p.m.

5. Vehicle repair and service uses are permitted in the commercial mixed-use zones only when conducted within a completely enclosed building.
6. Day care and childcare uses are limited to 5,000 sq. ft.
7. Manufacturing and production uses are limited to 5,000 sq ft in floor area per use on the ground floor and are only permitted when associated with, and accessory to, a related retail oriented sales or eating/drinking establishment use. For purposes of this subsection, manufacturing and production involve goods that are sold or distributed beyond or outside of the associated on-site eating or drinking establishment or retail trade use. For example, a brewing facility that distributes or sells its products elsewhere would be considered a manufacturing and production use, while a restaurant kitchen that prepares food that is purchased on-site would not be considered manufacturing or production.

19.303.3 Development Standards

These development standards are intended to ensure that new development in the commercial mixed-use zones is appropriate for a mixed-use district in terms of building mass and scale, how the building addresses the street, and where buildings are located on a site.

Table 19.303.3 summarizes some of the development standards that apply in the commercial mixed-use zones. Development standards are presented in detail ~~i~~n Section 19.303.4~~.~~

Table 19.303.3
Commercial Mixed Use Zones—Summary of Development Standards

Standard	GMU	NMU	Standards/ Additional Provisions
A. Lot Standards			
1. Minimum lot size (sq ft)	1,500	1,500	
2. Minimum street frontage (ft)	25	25	
B. Development Standards			
1. Minimum floor area ratio[1]	0.5:1	0.5:1	**Section 19.303.4.A** Floor Area Ratio
2. Building height (ft) a. Base maximum b. Maximum with height bonus	 45 57	 45 Height bonus not available	**Section 19.303.4.B** Building Height
3. Street Setbacks (ft) a. Minimum street setback b. Maximum street setback c. Side and rear setbacks	 0-15[2] 10-20[3] None	 None 10 None	**Section 19.501.2** Yard Exceptions **Section 19.303.4.C** Street Setbacks
4. Frontage occupancy	50%	None	**Section 19.303.4.D** Frontage Occupancy Requirements **Figure 19.303.4.D** Frontage Occupancy Requirements
5. Maximum lot coverage	85%	85%	**Section 19.303.4.E** Lot Coverage
6. Minimum vegetation	15%	15%	**Section 19.303.4.F** Minimum Vegetation

7. Primary entrances	Yes	Yes	**Section 19.303.4.G** Primary Entrances
8. Off-street parking required	Yes	Yes	**Chapter 19.600** Off-Street Parking and Loading
9. Transit Street	Yes	Yes	**Subsection 19.505.8** Building Orientation to Transit
10. Transition Measures	Yes	Yes	**Subsection 19.504.6** Transition Area Measures
C. Other Standards			
1. Residential density requirements (dwelling units per acre) a. Stand-alone residential (1) Minimum (2) Maximum b. Mixed-use buildings	 25 50 None	 11.6 14.5 None	**Subsection 19.202.4** Density Calculations **Subsection 19.303.4.H** Residential Density **Subsection 19.501.4** Density Exceptions
2. Signs	Yes	Yes	**Section 14.16.040** Commercial Zone

1. Parking facilities and public parks and plazas are exempt from the minimum floor area ratio requirement.
2. Residential edge standards apply to properties as shown on Figure 19.303.5.
3. Commercial edge standards apply to properties as shown on Figure 19.303.4.

19.303.4 Detailed Development Standards

The following detailed development standards describe additional allowances, restrictions, and exemptions related to the development standards of Table 19.303.3

A. Floor Area Ratio

1. Intent

   The floor area ratio (FAR) is a tool for regulating the intensity of development. Minimum floor area ratios help to ensure that the intensity of development is controlled. In some cases, FAR densities are provided for provision of a public benefit or amenity to the community.

2. Standards

   a. The minimum floor area ratio in Table 19.303.3 applies to all nonresidential building development.

   b. Required minimum floor area ratio shall be calculated on a project-by-project basis and may include multiple contiguous parcels. In mixed-use developments, residential floor space will be included in the calculations of floor area ratio to determine conformance with minimum FAR.

   c. If a project is to be developed in phases, the required FAR must be met for the land area in the completed phase(s), without consideration of the land area devoted to future phases.

3. Exemptions

   The following are exempt from the minimum floor area ratio requirement.

   a. Parking facilities

b. Public parks and plazas

B. Building Height

1. Intent

Maximum building height standards promote a compatible building scale and relationship of one structure to another.

2. Base Maximum Building Height Standard

a. The base maximum building height in the GMU zone is 3 stories or 45 feet, whichever is less, unless the height bonus in Subsection 19.303.4.B.3 below is applied.

b. The maximum building height in the NMU zone is 3 stories or 45 feet, whichever is less. No building height bonus is available in the NMU zone.

3. Height Bonuses

A building in the GMU Zone can utilize one of the development incentive bonuses of this subsection.

a. Residential

New buildings that devote at least 1 story or 25% of the gross floor area to residential uses are permitted 1 additional story or an additional 12 ft of building height, whichever is less.

b. Green Building

Project proposals that receive certification (any level) under an ANSI-approved green building rating system (e.g., LEED, Green Globes or Earth Advantage certified) are permitted an additional story or an additional 12 ft of building height, whichever is less.

C. Street Setbacks

1. Intent

Buildings are allowed and encouraged to build up to the street right-of-way in the commercial mixed-use zones. This ensures that buildings engage the street right-of-way.

2. Standards

a. No minimum street setbacks are required, except for Residential Street Edges in Figure 19.303.5.

b. In the GMU Zone, maximum street setback is 20 feet. For properties shown as having a commercial edge on Figure 19.303.4.C.2.b, the following standards apply.

(1) No minimum street setback is required. Maximum street setback is 10 feet.

(2) The area within the street setback, if provided, shall be landscaped.

c. In the NMU zone, the maximum street setback is 10 feet unless the yard exception standards of Section 19.501.2 apply.

d. The setback area may include usable open space such as plazas, courtyards, terraces and small parks.

e. Usable open space may be counted toward the minimum vegetation requirement in Subsection (F) below.

f. No vehicle parking is permitted between the building and the street. Vehicle parking must be located behind and/or to the side of buildings except in cases of a through-lot or lots which front on 3 or more streets, in which case this standard applies to 2 streets.

[Figure 19.303.4.C.2.b. Commercial Edge Treatment]

D. Frontage Occupancy Requirements

The intent of this standard is to establish a consistent "street wall" along key streets. Minimum frontage occupancy requirements are established for block faces identified on Figure 19.303.4.D. The requirements apply as follows:

For block faces identified on Figure 19.303.4.D, 50 percent of the site frontage must be occupied by a building or buildings. If the development site has frontage on more than one street, the frontage occupancy requirement must be met on one street only.

E. Lot Coverage

The maximum area that may be covered by primary and accessory buildings shall not exceed 85 percent of the total lot area.

F. Minimum Vegetation

The minimum vegetation area that shall be retained or planted in trees, grass, shrubs, bark dust for planting beds, etc., shall be 15 percent of the total lot area.

G. Primary Entrances

1. Intent

To promote pedestrian-friendly development by providing building entrances that are oriented to the sidewalk or other public space and connected with clearly-marked pedestrian walkways.

2. Standards

a. All new buildings shall have at least one primary entrance facing an abutting public street (i.e., within 45 degrees of the street property line); or, if the building entrance must be turned more than 45 degrees from the public street (i.e., front door is on a side or rear elevation) due to the configuration of the site or similar constraints, a pedestrian walkway must connect the primary entrance to the sidewalk.

b. Where a development contains multiple buildings and there is insufficient public street frontage to meet the above building orientation standards for all buildings on the subject site, a building's primary entrance may orient to plaza, courtyard, or similar pedestrian space containing pedestrian amenities. When oriented this way, the primary entrance(s), plaza, or courtyard shall be connected to the street by a pedestrian walkway.

c. If a development is on a corner in the GMU Zone, the primary entrance may be oriented toward either street.

d. If a development is on a corner in the NMU zone, the primary entrance must be oriented toward 32nd Ave or 42nd Ave.

[Figure 19.303.4.D Frontage Occupancy Requirements]

H. Residential Density

1. Intent

   Minimum densities are applied to residential development in the commercial mixed-use zones to assure efficient use of land at densities that support transit use and nearby businesses.

2. Standards

   a. Minimum density for standalone residential development in the GMU zone is 25 units per acre and maximum density is 50 units per acre.

   b. Minimum density for stand-alone residential development in the NMU zone is 11.6 units per acre and maximum density is 14.5 units per acre.

3. Exemptions

   There are no minimum or maximum density requirements when residential units are developed as part of a mixed-use building. Maximum residential densities for mixed-use buildings are controlled by height limits.

19.303.5 Standards for Residential Street Edges

For properties shown as having a residential edge on Figure 19.303.5, and for development that occurs adjacent to or abutting an R-3 or an R-5 zone, the following standards apply.

A. A minimum setback of 15 feet shall apply.

B. Along the property line adjacent to the residential zone, buildings within 50 feet of 37th Ave and Monroe St shall provide a step back of at least 6 feet for any portion of the building above 35 feet.

C. A height bonus consistent with Section 19.303.3.B(4)(b) may only be applied to buildings or portions of a building that are at least 50 feet away from the adjacent residential zone.

D. An additional minimum 8-ft-wide densely planted buffer is required along property lines where flex space development abuts a residential zone.

[Figure 19.303.5 Residential Edge Treatment]

19.303.6 Standards for Medical Marijuana Facilities

In the commercial mixed-use zones, medical marijuana facilities shall meet the following standards:

A. As set forth by Oregon Administrative Rules, a medical marijuana facility shall not be located within 1,000 ft of the real property comprising a public or private elementary, secondary, or career school attended primarily by minors or within 1,000 ft of another medical marijuana facility. In addition, a medical marijuana facility shall not be located within 1,000 ft of the Wichita and Hector Campbell school sites.

B. A medical marijuana facility shall not be colocated with another business.

C. Display of marijuana or marijuana products that are visible from outside of the facility is prohibited.

D. The hours of operation for medical marijuana facilities shall be limited to the hours between 8:00 a.m. and 10:00 p.m.

19.303.7 Additional Provisions

Depending upon the type of use and development proposed, the following sections of the Milwaukie Code may apply. These sections are referenced for convenience, and do not limit or determine the applicability of other sections within the Milwaukie Municipal Code.

A. Section 19.500 Supplementary Development Regulations

This section contains standards for site and building design that will apply to most new types of development, including residential and commercial. Relevant sections include:

1. 19.501 General Exceptions
2. 19.502 Accessory Structures
3. 19.503 Accessory Uses
4. 19.504 Site Design Standards
5. 19.505 Building Design Standards

B. Section 19.600 Off-Street Parking and Loading

Contains standards for vehicle and bicycle parking, including required number of spaces and design standards for parking and loading areas.

C. Section 19.700 Public Facility Improvements

Contains standards for transportation, utility and other public facility improvements that may be required as part of development.

CHAPTER 19.400 OVERLAY ZONES AND SPECIAL AREAS

19.404 MIXED USE OVERLAY ZONE MU REPEALED

CHAPTER 19.500 SUPPLEMENTARY DEVELOPMENT REGULATIONS

19.504.6 Transition Area Measures

Where commercial, mixed-use, or industrial development is proposed abutting or adjacent to properties zoned for lower-density residential uses, the following transition measures shall be required. These additional requirements are intended to minimize impacts on lower-density residential uses.

A. All yards that abut, or are adjacent across a right-of-way from, a lower-density zone shall be at least as wide as the required front yard width of the adjacent lower-density zone. This additional yard requirement shall supersede the base zone yard requirements for the development property where applicable, except in the NMU Zone. In the NMU Zone, the base zone front yard requirements supersede these requirements.

B. All yards that abut, or are adjacent across a right-of-way from, a lower-density zone shall be maintained as open space. Natural vegetation, landscaping, or fencing shall be provided to the 6-ft level to screen lower-density residential uses from direct view across the open space.

19.505.7 Nonresidential Development

A. Purpose

The design standards contained in this section are intended to encourage building design and construction with durable, high-quality materials. The design standards support development of an attractive, cohesive and pedestrian-friendly commercial area. The design standards do not prescribe a particular building or architectural style.

B. Applicability

1. The design standards in this section generally apply to the street-facing facades of new commercial, institutional, manufacturing and mixed-use buildings within the commercial mixed-use zones.
2. The standards in this section do not apply to stand-alone multifamily housing. Stand-alone multifamily buildings are subject to the design standards in Section 19.505.3 Multifamily Housing.
3. The standards in this section do not apply to rowhouses or live/work units. Rowhouses and live/work units are subject to the design standards in Section 19.505.5 Rowhouses and Section 19.505.6 Live/Work Units.

C. Building Design Standards

All buildings that meet the applicability provisions in Subsection 19.505.7.B shall meet the following design standards.

An applicant may request a variance to the building design standards in Subsection 19.505.7.C through a Type II review, pursuant to Subsection 19.911.3.B.7.

1. Corners

   The intent of this standard is to reinforce intersections as an important place for people to gather.

   Buildings located at a key corner in the GMU Zone, as shown on Figure 19.505.7.C.1, shall incorporate one of the following features:

   a. Locate the primary entry to the building at the corner

   b. A prominent architectural element, such as increased building height or massing, a cupola, a turret or a pitched roof at the corner of the building or within 20 feet of the corner of the building;

   c. The corner of the building cut at a 45 degree angle

2. Weather Protection

   The intent of this standard is, through the use of awnings and canopies along the ground floor of buildings, to protect pedestrians from rain and provide shade; to encourage window shopping and lingering; and to create visual interest on the ground floor of a building.

   Buildings shall provide weather protection for pedestrians as follows:

   a. Minimum weather protection coverage

      All ground floor building entries (excluding loading docks, bays, etc.) shall be protected from the weather by canopies, or recessed behind the front building façade at least 3 feet.

   b. Weather protection design

      Weather protection shall comply with applicable building codes. Where applicable, weather protection shall be designed to accommodate pedestrian signage (e.g., blade signs) while maintaining required vertical clearance.

[Figure 19.505.7.C.1 Key Corners]

3. Exterior Building Materials

   The intent of this standard is to provide a sense of permanence through the use of certain permitted building materials; to provide articulation and visual interest to larger buildings; and to allow for a variety of materials and designs.

   The following standards are applicable to the exterior walls of new buildings facing streets, courtyards, and/or public squares. Table 19.505.7.C.3 specifies the primary, secondary and prohibited material types referenced in this standard.

   a. Buildings shall utilize primary materials for at least 60 percent of the applicable building facades.

   b. Secondary materials are permitted on no greater than 40 percent of each applicable building facade.

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

   d. Buildings shall not utilize materials listed as (N) prohibited.

e. For existing development, façade modifications that affect more than 50 percent of the façade shall comply with standards in this section. The Planning Director may waive this requirement if application of the standards would create an incongruous appearance of existing and new materials.

Table 19.505.7.C.3
Commercial Exterior Building Materials

Material Type	Nonresidential and Mixed-Use
Brick	P
Stone/masonry	P
Stucco	P
Glass (transparent, spandrel)	P
Concrete (poured in place or precast)	P
Finished wood, wood veneers and wood siding	S
Finished metal panels, such as anodized aluminum, stainless steel or copper, featuring a polished, brushed or patina finish	S
Concrete blocks with integral color (ground, polished or glazed finishes)	S
Fiber reinforced cement siding and panels	S
Ceramic tile	S
Concrete blocks with integral color (split face finish)	A
Standing seam and corrugated metal	A
Glass block	A
Vegetated wall panels or trellises	A
Vinyl siding	N
Exterior insulation finishing system (EIFS)	N
Plywood paneling	N

P = Primary Material
S = Secondary Material
A = Accent Material
N = Prohibited Material

4. Windows and Doors

The standards of this section are intended to enhance street safety and provide a comfortable pedestrian environment by providing ground-level transparency between the interior of buildings and the sidewalk.

a. For non-residential and mixed-use buildings, 30 percent 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 feet above finished grade, whichever is less.

b. For all buildings, the following applies:

(1) Nonresidential ground floor windows must have a visible transmittance (VT) of 0.6 or higher.

(2) 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.

(3) Clear glazing is required for ground-floor windows. Nontransparent, reflective, or opaque glazings are not permitted.

(4) The bottom edge of windows along pedestrian ways shall be constructed no more than 36 inches above grade.

(5) Ground-floor windows for nonresidential uses shall allow views into storefronts, working areas, or lobbies. Signs are limited to a maximum coverage of 50 percent of the required window area.

c. Windows shall be designed to provide shadowing. This can be accomplished by recessing windows 4 inches into the façade and/or incorporating trim of a contrasting material or color.

d. For all building windows facing streets, courtyards, and/or public squares, the following window elements are prohibited:

(1) Reflective, tinted, or opaque glazing

(2) Simulated divisions (internal or applied synthetic materials)

(3) Exposed, unpainted metal frame windows

5. Roofs

a. The intent of this standard is to enliven the pedestrian experience and create visual interest through roof form. The roof form of a building shall follow one (or a combination) of the following forms:

(1) Flat roof with parapet or cornice

(2) Hip roof

(3) Gabled roof

(4) Dormers

(5) Shed roof

b. All sloped roofs exposed to view from adjacent public or private streets and properties shall have a minimum 4/12 pitch.

c. Sloped roofs shall have eaves, exclusive of rain gutters, that project from the building wall at least 12 inches.

d. 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 roof line at least 12 inches and/or a cornice that projects from the building face at least 6 inches.

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.

6. Rooftop Equipment and Screening

The intent of this standard is to integrate mechanical equipment into the overall building design.

a. The following rooftop equipment does not require screening:

(1) Solar panels, wind generators, and green roof features;

(2) Equipment under two feet in height.

b. Elevator mechanical equipment may extend above the height limit a maximum of 16 feet 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 feet in height, shall be set back a minimum of five feet from the roof edge and shall be screened from public view and from views from adjacent buildings by one of the following methods:

(1) A screen around the equipment that is made of a primary exterior finish material used on other portions of the building or wood fencing or masonry;

(2) 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.

7. Ground-Level Screening

Mechanical and communication equipment and outdoor storage and outdoor garbage and recycling areas shall be screened so they are not visible from streets and other ground-level private open space and common open spaces.

CHAPTER 19.900 LAND USE APPLICATIONS

19.904 COMMUNITY SERVICE USES

19.904.11 Standards for Wireless Communication Facilities

Table 19.904.11.C
Wireless Communication Facilities—Type and Review Process

Towers		WCFs Not Involving New Tower		
Zones	New Monopole Tower 100 Feet	Building Rooftop or Wall Mounted Antenna[1]	Water Towers, Existing Towers, and Other Stealth Designs	On Existing Utility Pole in Row with or w/out Extensions[2]
BI	P1	P2	P2	P2
M	P1	P2	P2	P2
M-TSA	P1	P2	P2	P2
C-N	N	P2	P2	P2
C-G	N	P2	P2	P2
C-L	N	P2	P2	P2
C-CS	N	P2	P2	P2
OS	N	P2	P2	P2

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DMU	N	P2	P2	P2
GMU	N	P2	P2	P2
NMU	N	P2	P2	P2
R-1-B	N	P2	P2	P2
R-1	N	N	P2	P2
R-2	N	N	P2	P2
R-2.5	N	N	P2	P2
R-3	N	N	P2	P2
R-5	N	N	P2	P2
R-7	N	N	P2	P2
R-10	N	N	P2	P2

P = Permitted

1 = Type III review—requires a public hearing in front of the Planning Commission

2 = Type II review—provides for an administrative decision

N = Not Permitted

[1] Rooftop extensions are not to exceed 15 ft in height above the roof top and are not to project greater than 5 ft from the wall of a building.

[2] Antennas placed on right-of-way utility poles may be extended 15 ft. If the pole cannot be extended, the carrier may replace the pole. The replacement utility pole shall not exceed 15 ft in height of the pole that is to be replaced.

F. Location and Size Restrictions

2. Height: maximum heights. Also see Table 19.904.11.C.

a. Height Restrictions

The maximum height limitation of the monopole tower and antennas shall not exceed the following:

(1) BI, M, and M-TSA Zones: 100 ft.

(2) New towers are not permitted in the R-1-B, R-1, R-2, R-2.5, R-3, R-5, R-7, R-7PD, R-10, R-10PD, GMU, NMU, C-N, C-G, C-L, OS, and DMU Zones.

Updates for Section References and Housekeeping Only

19.201 DEFINITIONS

"Physical characteristics" means the physical, natural, and/or man-made features characteristic to a property or properties, including, but not limited to, trees and other vegetation, rocks and outcrops, topography and ground features such as knolls and depressions, water bodies and wetlands, soil characteristics, excavations and fill, boundaries, and embankments.

19.202 MEASUREMENTS

19.202.2 Vertical Measurements

C. Exterior Height of Accessory Structures

The exterior height of an accessory structure is the vertical distance above the average of the highest and lowest points of finished grade, within a 10-ft horizontal distance from the base of the building, and the top of a building described in Subsection 19.202.B.2.

19.202.4 Density Calculations

D. Minimum Density

2. Density Calculation

The minimum number of dwelling units required is calculated by dividing the net area by 43,560 sq ft to convert the area to acres, then by multiplying the acreage by the minimum required dwelling unit density in the applicable base zone in Chapter 19.300.

E. Maximum Density

2. Density Calculation

The maximum number of dwelling units allowed is calculated by dividing the net area by 43,560 sq ft to convert the area to acres, then by multiplying the acreage by the maximum allowed dwelling unit density in the applicable base zone in Chapter19.300.

19.400 OVERLAY ZONES AND SPECIAL AREAS

19.401 WILLAMETTE GREENWAY OVERLAY ZONE WG

19.403 HISTORIC PRESERVATION OVERLAY ZONE HP

19.405 AIRCRAFT LANDING FACILITY ZONE L-F

19.700 PUBLIC FACILITY IMPROVEMENTS

19.707 AGENCY NOTIFICATION AND COORDINATED REVIEW

19.707.1 Agency Notification

C. 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.

19.708 TRANSPORTATION FACILITY REQUIREMENTS

The City's street design standards are based on the street classification system described in the TSP. Figure 8-1of the TSP identifies the functional street classification for every street in the City and Figure 10-1 identifies the type and size of street elements that may be appropriate for any given street based on its classification.

19.900 LAND USE APPLICATIONS

19.901 INTRODUCTION

Table 19.901
Land Use Applications

Application Type	Municipal Code Location	Types
Miscellaneous: Barbed Wire Fencing	Chapters 19.500 Subsection 19.502.2.B.1.b-c	II

Underline/Strikeout Amendments

Title 14 Signs

*These amendments are based on the adoption of the **Downtown** amendments by Council on September 1, 2015, and the expectation that the **Central Milwaukie** amendments will have been adopted before these **Neighborhood Main Streets** amendments go to the Milwaukie City Council for adoption.*

CHAPTER 14.04 GENERAL PROVISIONS

14.04.030 DEFINITIONS

The following words and phrases where used in this title shall, for the purposes of this title, have the meanings respectively ascribed to them in this section:

"Other commercial zones" means the C-L, Limited Commercial; ~~DMU, Downtown Mixed Use;~~ C-CS, Community Shopping Commercial; GMU, General Mixed Use; NMU, Neighborhood Mixed Use Zone; and C-G, General Commercial, Zones, as defined in the Zoning Ordinance.

CHAPTER 14.16 SIGN DISTRICTS

14.16.040 COMMERCIAL ZONES

No sign shall be installed or maintained in the C-L, C-CS, NMU, and GMU Zones, except as allowed under Section 14.12.010 Exempted Signs, or as otherwise noted in Table 14.16.040.

Table 14.16.040
Standards for Signs in Commercial Zones C-L, C-CS, NMU, and GMU

Title 19 Zoning Ordinance

*These amendments are based on the adoption of the **Downtown** amendments by Council on September 1, 2015, and the expectation that the **Central Milwaukie** amendments will have been adopted before these **Neighborhood Main Streets** amendments go to the Milwaukie City Council for adoption.*

CHAPTER 19.100 INTRODUCTORY PROVISIONS

19.107 ZONING

19.107.1 Zone Classifications

For the purposes of this title, the following base zones and overlay zones are established in the City per Table 19.107.1:

Table 19.107.1
Classification of Zones

Zone Description	Abbreviated Description
Base Zones	
Residential	R-10
Residential	R-7
Residential	R-5
Residential	R-3
Residential	R-2.5
Residential	R-2
Residential	R-1
Residential-Business Office	R-1-B
Downtown Mixed Use	DMU
Open Space	OS
Neighborhood Commercial	C-N
Limited Commercial	C-L
General Commercial	C-G
Community Shopping Commercial	C-CS
Manufacturing	M
Business Industrial	BI
Planned Development	PD
Tacoma Station Area Manufacturing	M-TSA
General Mixed Use	GMU
Neighborhood Mixed Use	NMU
Overlay Zones	
Willamette Greenway	WG
Historic Preservation	HP
Flex Space	FS
Aircraft Landing Facility	L~~-F~~
Tacoma Station Area	TSA

CHAPTER 19.200 DEFINITIONS AND MEASUREMENTS

19.201 DEFINITIONS

"Transient occupancy" means a period of occupancy that does not exceed 30 days.

CHAPTER 19.300 BASE ZONES

19.303 RESIDENTIAL-OFFICE-COMMERCIAL ZONE R-O-C REPEALED

19.303 ~~GENERAL~~ COMMERCIAL MIXED-USE ZONES ~~GMU~~

19.303.1 Purpose

A. The General Mixed Use Zone is intended to recognize the importance of Central Milwaukie as a primary commercial center and promote a mix of uses that will support a lively and economically robust district. It is also intended to ensure high quality urban development that is pedestrian-friendly and complementary to the surrounding area.

B. The Neighborhood Mixed Use Zone is intended to recognize 32nd and 42nd Avenues as neighborhood commercial centers. This zone allows for a mix of small-scale retail and services, along with residential uses, that meet the needs of nearby residents and contribute to a vibrant, local economy. It is also intended to provide a safe and pleasant pedestrian environment while maintaining a neighborhood-scale identity.

19.303.2 Uses

A. Permitted Uses

Uses allowed outright in the ~~GMU~~ commercial mixed-use zones are listed in Table 19.303.2 with a "P." These uses are allowed if they comply with the development and design standards and other regulations of this title.

B. Conditional Uses

Uses listed in Table 19.303.2 as "CU" are permitted only as conditional uses in conformance with Section 19.905.

C. Nonconforming Uses, Structures, and Development

Existing structures and uses that do not meet the standards for the ~~GMU~~ commercial mixed-use zones may continue in existence. Alteration or expansion of a nonconforming use, structure or development that brings the use, structure or development closer to compliance may be allowed through Development Review pursuant to Section 19.906. Alteration or expansion of a nonconforming use or structure that does not bring the use or structure closer to compliance may be allowed through a Type III Variance pursuant to Section 19.911. Except where otherwise stated in this section, the provisions of Chapter 19.800 Nonconforming Uses and Development apply.

D. Prohibited Uses

Uses not listed in Table 19.303.2, and not considered accessory or similar pursuant to (E) and (G~~F~~) below, are prohibited. Uses listed with an “N” in Table 19.303.2 are also prohibited.

E. Accessory Uses

Uses that are accessory to a primary use are allowed if they comply with all development standards. ~~For the purposes of this section, drive-through facilities are considered an accessory use and must conform to Section 19.606.3.~~

F. Drive-Through Uses

For the purpose of this section, drive-through uses are not considered an accessory use and must be approved through a conditional use review in the NMU Zone in conformance with Section 19.905. Drive-through facilities must also conform to Section 19.606.3.

G~~F~~. Similar Uses

The Planning Director, through a Type I review, may determine that a use that is not listed is considered similar to an example use listed in Table 19.303.2. The unlisted use shall be subject to the standards applicable to the similar example use.

Table 19.303.2
~~General~~ Commercial Mixed Use Zones Uses

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 **Section 19.905** Conditional Uses
Multifamily	P	CU	**Subsection 19.505.3** Multifamily Housing **Section 19.905** Conditional Uses
Mixed use[2]	P	P	**Subsection 19.505.6** Nonresidential Development
Live/work units	P	P	**Subsection 19.505.6** Live/Work Units
Senior and retirement housing	P	CU	**Subsection 19.505.3** Multifamily Housing **Section 19.905** Conditional Uses
Accessory dwelling units	N	CU	**Section 19.905** Conditional Uses **Subsection 19.910.1** Accessory Dwelling Units
Commercial[3]			
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, brokerage houses, bank or credit unions; ~~headquarters, or~~ real estate agents; sales offices; government offices and public utility offices; and medical and dental clinics.	P	P	

Proposed Code Amendment

Indoor recreation. Indoor recreation consists of facilities providing active recreational uses of a primarily indoor nature. Examples include: gyms, dance studios, tennis, racquetball and soccer centers, recreational centers, skating rinks, bowling alleys, arcades, shooting ranges, and movie theaters.	P	P	
Retail-oriented sales. Sales-oriented retail firms are involved in the sale, leasing, and rental of new or used products to the general public. Examples include: stores selling, leasing, or renting consumer, home, and business goods including art, art supplies, bicycles, clothing, dry goods, electronics, fabric, gifts, groceries, hardware, household products, jewelry, pets and pet products, pharmaceuticals, plants, printed materials, stationery, and printed and electronic media. ~~May also include car sales and other auto-oriented retail uses.~~	P	P	
Drinking establishments. Drinking establishments primarily involve the sale of alcoholic beverages for consumption on-site. Examples include: tavern, bar, or cocktail lounge.	P	CU	**Section 19.905** Conditional Uses
Eating ~~and drinking~~ establishments. Eating ~~and Drinking E~~establishments primarily involve the sale of prepared food and beverages for consumption on-site or take-away. Eating establishments may include incidental sales of alcoholic beverages. Examples include: restaurants, delicatessens, retail bakeries~~, taverns, brew pubs~~, coffee shops, concession stands, and espresso bars.	P	P	
Medical marijuana facility.[4] Medical marijuana facility means a business that dispenses medical marijuana in accordance with the regulations set forth by ORS Chapter 475 and related Oregon Administrative Rules. State-registered grow sites are not considered to be medical marijuana facilities and are not permitted under the City of Milwaukie's medical marijuana facility regulations.	P	P	**Subsection 19.303.6** Standards for Medical Marijuana Facilities

Vehicle sales and rentals. Vehicle sales and rentals means a business that sells or leases consumer vehicles including passenger vehicles, motorcycles, light and medium trucks, boats and other recreational vehicles.	P	N	
Personal service oriented. Personal service oriented firms are involved in providing consumer services. Examples include: hair, tanning and spa services, pet grooming, photo and laundry drop-off, dry cleaners, and quick printing.	P	P	
Repair-oriented.[2] Repair-oriented uses are establishments providing product repair of consumer and business goods. Examples include: repair of televisions and radios, bicycles, clocks, jewelry, guns, small appliances, office equipment, tailors and seamstresses, shoe repair, locksmiths, and upholsterers~~, and some automobile and boat service and repair~~.	P	P	
Vehicle repair and service.[5] Firms servicing passenger vehicles, light and medium trucks and other consumer motor vehicles such as motorcycles, boats and recreational vehicles. Also includes quick-servicing activities where the driver generally waits in the car before and while the service is performed. Examples include gas stations, quick oil change shops, car washes, vehicle repair, transmission or muffler shop, auto body shop, alignment shop, auto upholstery shop, auto detailing, and tire sales and mounting.	P	CU	**Section 19.905** Conditional Uses
Day care.~~[3]~~[6] Day Care is the provision of regular child care, with or without compensation, to four or more children by a person or person(s) who are not the child's parent, guardian, or person acting in place of the parent, in a facility meeting all state requirements. Examples include: nursery schools, before-and-after school care facilities, and child development centers.	P	P	

Proposed Code Amendment

Commercial lodging. Commercial Lodging includes for-profit residential facilities where tenancy is typically less than one month. Examples include: hotels, motels, and bed-and-breakfast establishments. Does not include senior and retirement housing.	P	P	
Boarding, lodging, or rooming house. Generally means a private home where lodgers rent one or more rooms for one or more nights, and sometimes for extended periods of weeks, months, and years. The common parts of the house are maintained, and some services, such as laundry and cleaning, may be supplied. Examples include: Boarding house and cooperative housing	CU	CU	**Section 19.905** Conditional Uses
~~**Commercial**~~ **Parking facility.** Parking facilities provide parking that is not accessory to a specific use. A fee may or may not be charged. A facility that provides both accessory parking for a specific use and regular fee parking for people not connected to the use is also classified as a Commercial Parking facility. Examples include structured parking, short- and long-term fee parking facilities, commercial district shared parking lots and commercial shuttle parking.	CU	CU	**Section 19.611** Parking Structures
Manufacturing and Production			
Manufacturing and production.[47] Uses are involved in the manufacturing, processing, fabrication, packaging, or assembly of goods. Natural, man-made, raw, secondary, or partially completed materials may be used. Examples include processing of food and related products; catering establishments; breweries, distilleries, and wineries; weaving or production of textiles or apparel; woodworking, including cabinet makers; manufacture or assembly of machinery, equipment, instruments, including musical instruments, vehicles, appliances, precision items, and other electrical items; and production of artwork and toys.	P	P	
Institutional			
Community service uses	CSU	CSU	**Section 19.904** Community Service Uses

P = Permitted.

N = Not permitted

CSU = Permitted with Community Service Use approval subject to provisions of Section 19.904. Type III review required to establish a new CSU or for major modification of an existing CSU. Type I review required for a minor modification of an existing CSU.

CU = Permitted with conditional use approval subject to the provisions of Section 19.905. Type III review required to establish a new CU or for major modification of an existing CU. Type I review required for a minor modification of an existing CU.

1. The limit of 4 consecutive row houses established in 19.505.5 does not apply in the GMU zone. In the GMU zone, there is no limit on the number of consecutive row houses.
2. Residential uses built as part of a vertical mixed-use building are not subject to conditional use review in the NMU Zone.
3. In the NMU Zone, unless otherwise specified in this section, all non-residential uses listed in Table 19.303.2 shall be no greater than 10,000 square feet in area per use. A non-residential use greater than 10,000 square feet in area may be approved through a conditional use review pursuant to Section 19.905.
4. Medical marijuana facilities shall meet the following standards:
   a. As set forth by Oregon Administrative Rules, a medical marijuana facility shall not be located within 1,000 ft of the real property comprising a public or private elementary, secondary, or career school attended primarily by minors or within 1,000 ft of another medical marijuana facility.
   b. A medical marijuana facility shall not be co-located with another business.
   c. Display of marijuana or marijuana products that are visible from outside of the facility is prohibited.
   d, The hours of operation for medical marijuana facilities shall be limited to the hours between 8:00 a.m. and 10:00 p.m.

5~~2~~. Vehicle repair and service ~~Repair oriented~~ uses are permitted in the commercial mixed-use zones~~GMU Zone~~ only when conducted within a completely enclosed building.

6~~3~~. Day care and childcare uses are limited to 5,000 sq. ft.

7~~4~~. Manufacturing and production uses are limited to 5,000 sq ft in floor area per use on the ground floor and are only permitted when associated with, and accessory to, a related retail oriented sales or eating/drinking establishment use. For purposes of this subsection, manufacturing and production involve goods that are sold or distributed beyond or outside of the associated on-site eating or drinking establishment or retail trade use. For example, a brewing facility that distributes or sells its products elsewhere would be considered a manufacturing and production use, while a restaurant kitchen that prepares food that is purchased on-site would not be considered manufacturing or production.

19.303.3 Development Standards

These development standards are intended to ensure that new development in the commercial mixed-use zones ~~GMU zone~~ is appropriate for a mixed-use district in terms of building mass and scale, how the building addresses the street, and where buildings are located on a site.

Table 19.303.3 summarizes some of the development standards that apply in the commercial mixed-use zones~~GMU zone~~. Development standards are presented in detail ~~full~~ in Section 19.303.4~~Subsection 19.303.3 (B)~~.

Table 19.303.3
~~General~~ Commercial Mixed Use Zones—Summary of Development Standards

Standard	GMU	NMU	Standards/ Additional Provisions
A. Lot Standards			
1. Minimum lot size (sq ft)	1,500	1,500	
2. Minimum street frontage (ft)	25	25	
B. Development Standards			
1. Minimum floor area ratio[1]	0.5:1	0.5:1	**Section 19.303.4.A** Floor Area Ratio

Proposed Code Amendment

2. Building height (ft) a. Base maximum b. Maximum with height bonus	 45 57	 <u>45</u> <u>Height bonus not available</u>	**Section 19.303.4.B** Building Height
3. Street Setbacks (ft) a. Minimum street setback b. Maximum street setback c. Side and rear setbacks	 0-15[2] 10-20[3] None	 <u>None</u> <u>10</u> <u>None</u>	**<u>Section 19.501.2</u>** <u>Yard Exceptions</u> **Section 19.303.4.C** Street Setbacks
4. Frontage occupancy	50%	<u>None</u>	**Section 19.303.4.D** Frontage Occupancy Requirements **Figure 19.303.4.D** Frontage Occupancy Requirements
5. Maximum lot coverage	85%	<u>85%</u>	**Section 19.303.4.E** Lot Coverage
6. Minimum vegetation	15%	<u>15%</u>	**Section 19.303.4.F** Minimum Vegetation
7. Primary entrances	Yes	<u>Yes</u>	**Section 19.303.4.G** Primary Entrances
8. Off-street parking required	Yes	<u>Yes</u>	**Chapter 19.600** Off-Street Parking and Loading
9. Transit Street	Yes	<u>Yes</u>	**Subsection 19.505.8** Building Orientation to Transit
~~9~~<u>10</u>. Transition Measures	Yes	<u>Yes</u>	**Subsection 19.504.6** Transition Area Measures
C. Other Standards			
1. Residential density requirements (dwelling units per acre) a. Stand-alone residential (1) Minimum (2) Maximum b. Mixed-use buildings	 25 50 None	 <u>11.6</u> <u>14.5</u> <u>None</u>	**Subsection 19.202.4** Density Calculations **Subsection 19.303.4.H** Residential Density **Subsection 19.501.4** Density Exceptions
2. Signs	Yes	<u>Yes</u>	**Section 14.16.040** Commercial Zone

1. ~~Commercial~~ Parking facilities and public parks and plazas are exempt from the minimum floor area ratio requirement.
2. Residential edge standards apply to properties as shown on Figure 19.303.5.
3. Commercial edge standards apply to properties as shown on Figure 19.303.4.~~C.2.b.~~

19.303.4 Detailed Development Standards

The following detailed development standards describe additional allowances, restrictions, and exemptions related to the development standards of Table 19.303.3

A. Floor Area Ratio

1. Intent

The floor area ratio (FAR) is a tool for regulating the intensity of development. Minimum floor area ratios help to ensure that the intensity of development is controlled. In some

cases, FAR densities are provided for provision of a public benefit or amenity to the community.

2. Standards

   a. The minimum floor area ratio in Table 19.303.3 applies to all nonresidential building development.

   b. Required minimum floor area ratio shall be calculated on a project-by-project basis and may include multiple contiguous parcels. In mixed-use developments, residential floor space will be included in the calculations of floor area ratio to determine conformance with minimum FAR.

   c. If a project is to be developed in phases, the required FAR must be met for the land area in the completed phase(s), without consideration of the land area devoted to future phases.

3. Exemptions

   The following are exempt from the minimum floor area ratio requirement.

   a. Parking facilities

   b. Public parks and plazas

B. Building Height

1. Intent

   ~~Minimum and~~ Maximum building height standards ~~serve several purposes. They~~ promote a compatible building scale and relationship of one structure to another.

2. Base Maximum Building Height Standard

   a. The base maximum building height in the GMU zone is 3 stories or 45 feet, whichever is less, unless the height bonus in Subsection 19.303.4.B.3 below is applied.

   b. The maximum building height in the NMU zone is 3 stories or 45 feet, whichever is less. No building height bonus is available in the NMU zone.

3. Height Bonuses

   A building in the GMU Zone can utilize one of the development incentive bonuses of this subsection.

   a. Residential

      New buildings that devote at least 1 story or 25% of the gross floor area to residential uses are permitted 1 additional story or an additional 12 ft of building height, whichever is less.

   b. Green Building

      Project proposals that receive certification (any level) under an ANSI-approved green building rating system (e.g., LEED, Green Globes or Earth Advantage certified) are permitted an additional story or an additional 12 ft of building height, whichever is less.

C. Street Setbacks

1. Intent

Buildings are allowed and encouraged to build up to the street right-of-way in the commercial mixed-use zones~~GMU zone~~. This ensures that buildings engage the street right-of-way.

2. Standards

   a. No minimum street setbacks are required, except for Residential Street Edges in Figure 19.303.5.

   b. In the GMU Zone, maximum street setback is 20 feet. For properties shown as having a commercial edge on Figure 19.303.4.C.2.b, the following standards apply.

      (1) No minimum street setback is required. Maximum street setback is 10 feet.

      (2) The area within the street setback, if provided, shall be landscaped.

   c. In the NMU zone, the maximum street setback is 10 feet unless the yard exception standards of Section 19.501.2 apply.

   d~~c~~. The setback area may include usable open space such as plazas, courtyards, terraces and small parks.

   e~~d~~. Usable open space may be counted toward the minimum vegetation requirement in Subsection (F) below.

   f~~d~~. No vehicle parking is permitted between the building and the street. Vehicle parking must be located behind and/or to the side of buildings except in cases of a through-lot or lots which front on 3 or more streets, in which case this standard applies to 2 streets.

[Figure 19.303.4.C.2.b. Commercial Edge Treatment]

D. Frontage Occupancy Requirements

The intent of this standard is to establish a consistent "street wall" along key streets. Minimum frontage occupancy requirements are established for block faces identified on Figure 19.303.4.D. The requirements apply as follows:

For block faces identified on Figure 19.303.4.D, 50 percent of the site frontage must be occupied by a building or buildings. If the development site has frontage on more than one street, the frontage occupancy requirement must be met on one street only.

E. Lot Coverage

The maximum area that may be covered by primary and accessory buildings shall not exceed 85 percent of the total lot area.

F. Minimum Vegetation

The minimum vegetation area that shall be retained or planted in trees, grass, shrubs, bark dust for planting beds, etc., shall be 15 percent of the total lot area.

G. Primary Entrances

1. Intent

   To promote pedestrian-friendly development by providing building entrances that are oriented to the sidewalk or other public space and connected with clearly-marked pedestrian walkways.

2. Standards

a. All new buildings shall have at least one primary entrance facing an abutting public street (i.e., within 45 degrees of the street property line); or, if the building entrance must be turned more than 45 degrees from the public street (i.e., front door is on a side or rear elevation) due to the configuration of the site or similar constraints, a pedestrian walkway must connect the primary entrance to the sidewalk.

b. Where a development contains multiple buildings and there is insufficient public street frontage to meet the above building orientation standards for all buildings on the subject site, a building's primary entrance may orient to plaza, courtyard, or similar pedestrian space containing pedestrian amenities. When oriented this way, the primary entrance(s), plaza, or courtyard shall be connected to the street by a pedestrian walkway.

c. If a development is on a corner in the GMU Zone, the primary entrance may be oriented toward either street.

d. If a development is on a corner in the NMU zone, the primary entrance must be oriented toward 32nd Ave or 42nd Ave.

[Figure 19.303.4.D Frontage Occupancy Requirements]

H. Residential Density

1. Intent

Minimum densities are applied to residential development in the commercial mixed-use zones~~GMU zone~~ to assure efficient use of land at densities that support transit use and nearby businesses.

2. Standards

a. Minimum density for standalone residential development in the GMU zone is 25 units per acre and maximum density is 50 units per acre.

b. Minimum density for stand-alone residential development in the NMU zone is 11.6 units per acre and maximum density is 14.5 units per acre.

~~b. There are no minimum density requirements when residential units are developed as part of a mixed-use building or development.~~

~~c. Maximum residential densities for mixed-use buildings are controlled by height limits.~~

3. Exemptions

There are no minimum or maximum density requirements when residential units are developed as part of a mixed-use building. Maximum residential densities for mixed-use buildings are controlled by height limits.

19.303.5 Standards for Residential Street Edges

For properties shown as having a residential edge on Figure 19.303.5, and for development that occurs adjacent to or abutting an R-3 or an R-5 zone, the following standards apply.

A. A minimum setback of 15 feet shall apply.

B. Along the property line adjacent to the residential zone, buildings within 50 feet of 37th Ave and Monroe St shall provide a step back of at least 6 feet for any portion of the building above 35 feet.

C. A height bonus consistent with Section 19.303.3.B(4)(b) may only be applied to buildings or portions of a building that are at least 50 feet away from the adjacent residential zone.

D. An additional minimum 8-ft-wide densely planted buffer is required along property lines where flex space development abuts a residential zone.

[Figure 19.303.5 Residential Edge Treatment]

19.303.6 Standards for Medical Marijuana Facilities

In the commercial mixed-use zones~~GMU Zone~~, medical marijuana facilities shall meet the following standards:

A. As set forth by Oregon Administrative Rules, a medical marijuana facility shall not be located within 1,000 ft of the real property comprising a public or private elementary, secondary, or career school attended primarily by minors or within 1,000 ft of another medical marijuana facility. In addition, a medical marijuana facility shall not be located within 1,000 ft of the Wichita and Hector Campbell school sites.

B. A medical marijuana facility shall not be colocated with another business.

C. Display of marijuana or marijuana products that are visible from outside of the facility is prohibited.

D. The hours of operation for medical marijuana facilities shall be limited to the hours between 8:00 a.m. and 10:00 p.m.

19.303.7 Additional Provisions

Depending upon the type of use and development proposed, the following sections of the Milwaukie Code may apply. These sections are referenced for convenience, and do not limit or determine the applicability of other sections within the Milwaukie Municipal Code.

A. Section 19.500 Supplementary Development Regulations

This section contains standards for site and building design that will apply to most new types of development, including residential and commercial. Relevant sections include:

1. 19.501 General Exceptions
2. 19.502 Accessory Structures
3. 19.503 Accessory Uses
4. 19.504 Site Design Standards
5. 19.505 Building Design Standards

B. Section 19.600 Off-Street Parking and Loading

Contains standards for vehicle and bicycle parking, including required number of spaces and design standards for parking and loading areas.

C. Section 19.700 Public Facility Improvements

Contains standards for transportation, utility and other public facility improvements that may be required as part of development.

CHAPTER 19.400 OVERLAY ZONES AND SPECIAL AREAS

19.404 MIXED USE OVERLAY ZONE MU REPEALED

CHAPTER 19.500 SUPPLEMENTARY DEVELOPMENT REGULATIONS

19.504.6 Transition Area Measures

Where commercial, mixed-use, or industrial development is proposed abutting or adjacent to properties zoned for lower-density residential uses, the following transition measures shall be required. These additional requirements are intended to minimize impacts on lower-density residential uses.

A. All yards that abut, or are adjacent across a right-of-way from, a lower-density zone shall be at least as wide as the required front yard width of the adjacent lower-density zone. This additional yard requirement shall supersede the base zone yard requirements for the development property where applicable, except in the NMU Zone. In the NMU Zone, the base zone front yard requirements supersede these requirements.

B. All yards that abut, or are adjacent across a right-of-way from, a lower-density zone shall be maintained as open space. Natural vegetation, landscaping, or fencing shall be provided to the 6-ft level to screen lower-density residential uses from direct view across the open space.

19.505.7 Nonresidential Development

A. Purpose

The design standards contained in this section are intended to encourage building design and construction with durable, high-quality materials. The design standards support development of an attractive, cohesive and pedestrian-friendly commercial area. The design standards do not prescribe a particular building or architectural style.

B. Applicability

1. The design standards in this section generally apply to the street-facing facades of new commercial, institutional, manufacturing and mixed-use buildings within the commercial mixed-use zones~~GMU zone~~.

2~~3~~. The standards in this section do not apply to stand-alone multifamily housing. Stand-alone multifamily buildings are subject to the design standards in Section 19.505.3 Multifamily Housing.

3~~2~~. The standards in this section do not apply to rowhouses or live/work units. Rowhouses and live/work units are subject to the design standards in Section 19.505.5 Rowhouses and Section 19.505.6 Live/Work Units.

C. Building Design Standards

All buildings that meet the applicability provisions in Subsection 19.505.7.B shall meet the following design standards.

An applicant may request a variance to the building design standards in Subsection 19.505.7.C through a Type II review, pursuant to Subsection 19.911.3.B.7.

1. Corners

   The intent of this standard is to reinforce intersections as an important place for people to gather.

   Buildings located at a key corner in the GMU Zone, as shown on Figure 19.505.7.C.1, shall incorporate one of the following features:

   a. Locate the primary entry to the building at the corner

   b. A prominent architectural element, such as increased building height or massing, a cupola, a turret or a pitched roof at the corner of the building or within 20 feet of the corner of the building;

   c. The corner of the building cut at a 45 degree angle

2. Weather Protection

   The intent of this standard is, through the use of awnings and canopies along the ground floor of buildings, to protect pedestrians from rain and provide shade; to encourage window shopping and lingering; and to create visual interest on the ground floor of a building.

   Buildings shall provide weather protection for pedestrians as follows:

   a. Minimum weather protection coverage

      All ground floor building entries (excluding loading docks, bays, etc.) shall be protected from the weather by canopies, or recessed behind the front building façade at least 3 feet.

   b. Weather protection design

      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.

[Figure 19.505.7.C.1 Key Corners]

3. Exterior Building Materials

   The intent of this standard is to provide a sense of permanence through the use of certain permitted building materials; to provide articulation and visual interest to larger buildings; and to allow for a variety of materials and designs.

   The following standards are applicable to the exterior walls of new buildings facing streets, courtyards, and/or public squares. Table 19.505.7.C.3 specifies the primary, secondary and prohibited material types referenced in this standard.

   a. Buildings shall utilize primary materials for at least 60 percent of the applicable building facades.

   b. Secondary materials are permitted on no greater than 40 percent of each applicable building facade.

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

   d. Buildings shall not utilize materials listed as (N) prohibited.

e. For existing development, façade modifications that affect more than 50 percent of the façade shall comply with standards in this section. The Planning Director may waive this requirement if application of the standards would create an incongruous appearance of existing and new materials.

Table 19.505.7.C.3
Commercial Exterior Building Materials

Material Type	Nonresidential and Mixed-Use
Brick	P
Stone/masonry	P
Stucco	P
Glass (transparent, spandrel)	P
Concrete (poured in place or precast)	P
Finished wood, wood veneers and wood siding	S
Finished metal panels, such as anodized aluminum, stainless steel or copper, featuring a polished, brushed or patina finish	S
Concrete blocks with integral color (ground, polished or glazed finishes)	S
Fiber reinforced cement siding and panels	S
Ceramic tile	S
Concrete blocks with integral color (split face finish)	A
Standing seam and corrugated metal	A
Glass block	A
Vegetated wall panels or trellises	A
Vinyl siding	N
Exterior insulation finishing system (EIFS)	N
Plywood paneling	N

P = Primary Material
S = Secondary Material
A = Accent Material
N = Prohibited Material

4. Windows and Doors

The standards of this section are intended to enhance street safety and provide a comfortable pedestrian environment by providing ground-level transparency between the interior of buildings and the sidewalk.

a. For non-residential and mixed-use buildings, 30 percent 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 feet above finished grade, whichever is less.

b. For all buildings, the following applies:

(1) Nonresidential ground floor windows must have a visible transmittance (VT) of 0.6 or higher.

(2) 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.

(3) Clear glazing is required for ground-floor windows. Nontransparent, reflective, or opaque glazings are not permitted.

(4) The bottom edge of windows along pedestrian ways shall be constructed no more than 36 inches above grade.

(5) Ground-floor windows for nonresidential uses shall allow views into storefronts, working areas, or lobbies. Signs are limited to a maximum coverage of 50 percent of the required window area.

c. Windows shall be designed to provide shadowing. This can be accomplished by recessing windows 4 inches into the façade and/or incorporating trim of a contrasting material or color.

d. For all building windows facing streets, courtyards, and/or public squares ~~in the downtown~~, the following window elements are prohibited:

(1) Reflective, tinted, or opaque glazing

(2) Simulated divisions (internal or applied synthetic materials)

(3) Exposed, unpainted metal frame windows

5. Roofs

a. The intent of this standard is to enliven the pedestrian experience and create visual interest through roof form. The roof form of a building shall follow one (or a combination) of the following forms:

(1) Flat roof with parapet or cornice

(2) Hip roof

(3) Gabled roof

(4) Dormers

(5) Shed roof

b. All sloped roofs exposed to view from adjacent public or private streets and properties shall have a minimum 4/12 pitch.

c. Sloped roofs shall have eaves, exclusive of rain gutters, that project from the building wall at least 12 inches.

d. 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 roof line at least 12 inches and/or a cornice that projects from the building face at least 6 inches.

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.

6. Rooftop Equipment and Screening

The intent of this standard is to integrate mechanical equipment into the overall building design.

a. The following rooftop equipment does not require screening:

(1) Solar panels, wind generators, and green roof features;

(2) Equipment under two feet in height.

b. Elevator mechanical equipment may extend above the height limit a maximum of 16 feet 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 feet in height, shall be set back a minimum of five feet from the roof edge and shall be screened from public view and from views from adjacent buildings by one of the following methods:

(1) A screen around the equipment that is made of a primary exterior finish material used on other portions of the building or wood fencing or masonry;

(2) 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.

7. Ground-Level Screening

Mechanical and communication equipment and outdoor storage and outdoor garbage and recycling areas shall be screened so they are not visible from streets and other ground-level private open space and common open spaces.

CHAPTER 19.900 LAND USE APPLICATIONS

19.904 COMMUNITY SERVICE USES

19.904.11 Standards for Wireless Communication Facilities

Table 19.904.11.C
Wireless Communication Facilities—Type and Review Process

Towers		WCFs Not Involving New Tower		
Zones	New Monopole Tower 100 Feet	Building Rooftop or Wall Mounted Antenna[1]	Water Towers, Existing Towers, and Other Stealth Designs	On Existing Utility Pole in Row with or w/out Extensions[2]
BI	P1	P2	P2	P2
M	P1	P2	P2	P2
M-TSA	P1	P2	P2	P2
C-N	N	P2	P2	P2
C-G	N	P2	P2	P2
C-L	N	P2	P2	P2
C-CS	N	P2	P2	P2
OS	N	P2	P2	P2

Proposed Code Amendment

DMU	N	P2	P2	P2
GMU	N	P2	P2	P2
NMU	N	P2	P2	P2
R-1-B	N	P2	P2	P2
R-1	N	N	P2	P2
R-2	N	N	P2	P2
R-2.5	N	N	P2	P2
R-3	N	N	P2	P2
R-5	N	N	P2	P2
R-7	N	N	P2	P2
R-10	N	N	P2	P2

P = Permitted

1 = Type III review—requires a public hearing in front of the Planning Commission

2 = Type II review—provides for an administrative decision

N = Not Permitted

[1] Rooftop extensions are not to exceed 15 ft in height above the roof top and are not to project greater than 5 ft from the wall of a building.

[2] Antennas placed on right-of-way utility poles may be extended 15 ft. If the pole cannot be extended, the carrier may replace the pole. The replacement utility pole shall not exceed 15 ft in height of the pole that is to be replaced.

F. Location and Size Restrictions

2. Height: maximum heights. Also see Table 19.904.11.C.

a. Height Restrictions

The maximum height limitation of the monopole tower and antennas shall not exceed the following:

(1) BI, M, and M-TSA Zones: 100 ft.

(2) New towers are not permitted in the R-1-B, R-1, R-2, R-2.5, R-3, R-5, R-7, R-7PD, R-10, R-10PD, GMU, NMU, C-N, C-G, C-L, OS, and DMU Zones.

Updates for Section References and Housekeeping Only

19.201 DEFINITIONS

"Physical characteristics" means the physical, natural, and/or man-made features characteristic to a property or properties, including, but not limited to, trees and other vegetation, rocks and outcrops, topography and ground features such as knolls and depressions, water bodies and wetlands, soil characteristics, excavations and fill, boundaries, and embankments.

19.202 MEASUREMENTS

19.202.2 Vertical Measurements

C. Exterior Height of Accessory Structures

The exterior height of an accessory structure is the vertical distance above the average of the highest and lowest points of finished grade, within a 10-ft horizontal distance from the base of the building, and the top of a building described in Subsection 19.202.B.2.~~19.902.2.B.2.~~

19.202.4 Density Calculations

D. Minimum Density

2. Density Calculation

The minimum number of dwelling units required is calculated by dividing the net area by 43,560 sq ft to convert the area to acres, then by multiplying~~dividing~~ the acreage~~net area~~ by the minimum required dwelling unit density in the applicable base zone in Chapter 19.300.

E. Maximum Density

2. Density Calculation

The maximum number of dwelling units allowed is calculated by dividing the net area by 43,560 sq ft to convert the area to acres, then by multiplying~~dividing~~ the acreage~~net area~~ by the maximum allowed dwelling unit density in the applicable base zone in Chapter19.300.

19.400 OVERLAY ZONES AND SPECIAL AREAS

19.401 WILLAMETTE GREENWAY OVERLAY ZONE WG

~~In a W-G Zone the following regulations shall apply:~~

19.403 HISTORIC PRESERVATION OVERLAY ZONE HP

~~In an HP Zone the following regulations shall apply:~~

19.405 AIRCRAFT LANDING FACILITY ZONE L-F

~~In an L-F Zone the following regulations shall apply:~~

19.700 PUBLIC FACILITY IMPROVEMENTS

19.707 AGENCY NOTIFICATION AND COORDINATED REVIEW

19.707.1 Agency Notification

C. 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~~3b~~ of the TSP.

19.708 TRANSPORTATION FACILITY REQUIREMENTS

The City's street design standards are based on the street classification system described in the TSP. Figure 8-1~~3b~~ of the TSP identifies the functional street classification for every street in the City and Figure 10-1 identifies the type and size of street elements that may be appropriate for any given street based on its classification.

19.900 LAND USE APPLICATIONS

19.901 INTRODUCTION

Table 19.901
Land Use Applications

Application Type	Municipal Code Location	Types
Miscellaneous:	Chapters 19.500	
Barbed Wire Fencing	Subsection 19.502.2.B.1.b-c	II
~~Bee Colony~~	~~Subsection 19.503.1.D~~	~~III~~

October 2, 2015

Dennis Egner, City of Milwaukie
Milwaukie Planning Commission
6101 SE Johnson creek Blvd.
Milwaukie OR 97206

RE File Number 2015-002
32nd and 42nd Avenue commercial districts.

Dear Sir:

I am in receipt of Public Notice regarding the proposed Phase 3 Moving Forward project. My property is within that 400-foot neighborhood boundary.

It appears to me that the properties on the East Side of 44th Avenue between Harrison Street and King Road should be included in this proposal. There are two residential properties between Harrison Street and Llewellyn Street. One property has a 4 unit apartment building, and the other property*, holds a single family residence zoned R-3. The section from LLewellyn Street to King Road also has two properties, one contains a residential duplex both units are rentals; and the other property is commercial office building. The entire length of 44th Avenue from Harrison Street to King Road is probably no more than 200 yards long.

I have no immediate plans for my property in regards to selling or seeking zoning changes. My property was purchased more than 25 years ago because it was within walking distance to shopping, hospital, transportation and automotive repair. Safeway's Gas station has replaced the old Texaco gas station and thereby reduced the choice of an auto repair facility within your proposed project. Tri Met discontinued the all day bus route from 44th Avenue & King Road to Portland. Now the #31 Bus route to Portland requires a bus change during most of the day. A none bus change ride to Portland and back was an added perk to living on 44th Avenue. Now prohibiting a vehicle sale or rental facility in this area makes Milwaukie a less convenient place to live.

I believe that within the next few years I will need to buy a newer used car. I expect to be able to walk to the current used car dealer at the corner of 42nd Street and King Road and be able to choose "kick the tires" of a possible purchase or car rental. I do not know if cars are currently rented there. I see no reason for the city to ban vehicle sales or rentals in this area. Milwaukie's economic status reflects the national economy and reducing jobs or convenience is not progressive or beneficial to our neighborhood.

Sincerely

Carl S. Jacob

Carl S. Jacob
P.O. Box 22832
Milwaukie OR 97269

cc Li Alligood, Senior Planner

* property located at 10500 SE 44th Avenue.

Larry D. Jakobson
10425 SE 42nd AVE
Milwaukie, OR 97222

Received via email on 10/5/15

October 2nd 2015

Li Alligood
Milwaukie Planning Dept
6101 SE Johnson Creek Blvd
Milwaukie, OR 97206

Dear Ms. Alligood,

SUBJECT: Moving Forward Milwaukie
Neighborhood Main Street Project Area

While I applaud the efforts of the City to improve the livability of it's neighborhoods, I have grave concerns about the drastic changes proposed.

I have owned and operated a business at the above address, 10425 SE 42nd AVE for a quarter century, building a customer base centered on good will which is a part of the value of this business, providing automobile sales and services to individuals who were denied traditional financing. As time goes by and we all mature, I am considering retirement. The primary source of my post employment funding will be from the sale of this business & property. I feel strongly the value of the business and property will be negatively affected by the requirements of your proposal. I wish to retain the right to sell this business and property to another party who will have the ability to continue the current use under a different DBA should they choose.

I also have a question about subdivision. With the lot size reduced to 1500 sq ft, and the street frontage reduced to 25 ft, could this lot be subdivided?

Respectfully,

Larry Jakobson

MILWAUKIE
Dogwood City of the West

To: **Planning Commission**

From: **Dennis Egner, Planning Director**

Date: **October 6, 2015, for October 13, 2015, Work Session**

Subject: **File #ZA-2015-003 Short-Term Rentals**

File Types: Zoning Ordinance Text Amendment

Applicant: Dennis Egner, Planning Director, City of Milwaukie

NDA: All with residentially zoned land

ACTION REQUESTED

No formal action requested. The Commission may choose to provide general direction for development of a draft code amendment in advance of a public hearing.

BACKGROUND INFORMATION

A. History of Prior Actions and Discussions

- **September 23, 2015:** Staff held a worksession with owners/operators of local short-term rental businesses and Neighborhood District Association (NDA) representatives. The meeting was attended by ten local owners/operators and two representatives from NDAs.
- **July 23, 2015**: The City Council held a study session to discuss the sharing economy and provide staff with direction regarding program development and regulation. The Council directed staff to move forward with a process to provide greater flexibility for short-term rentals.
- **February 17, 2015:** During the Community Development Update at the Council meeting on February 17, 2015, the Planning Director noted that staff was developing an interim approach to allow short-term rentals in single family zones provided that a room was only rented once per month. This approach was in response to concerns about code enforcement on a number of short-term rental operations following a complaint about an Airbnb rental in a single family neighborhood. (See Attachment 1 for the final February 23, 2015 version of the interim approach).
- **February 7, 2015:** The City Council held a goal setting forum at City Hall on February 7, 2015. Among the 228 comments received at the forum were several that addressed the sharing economy and opportunities for short-term rentals. Council members

expressed interest in the subject but did not prioritize it during further discussion of goals.

B. What are short-term rentals?

Short-Term Rentals are housing units and rooms that are rented out for periods less than 30 days in length. There are three types of short-term rentals:

- Hosted – where the primary occupants are present during the rental;
- Unhosted – where the primary occupants vacate the unit during the rental period; and
- Vacation rental – where there are no primary occupants.

Hosted and unhosted rentals are generally considered to be an accessory use to a primary residence. A vacation rental is a primary use and is more commercial in nature.

Short-term rental operators typically rely on services such as Airbnb and Vacation Rentals by Owner (VRBO) to rent rooms and houses.

Short-Term Rental operators may or may not offer services similar to a typical Bed and Breakfast. Most Bed and Breakfast operators live in the house with the rental rooms and offer breakfast with a night's lodging.

C. Zoning Ordinance – Relevant Definitions and Provisions

The Milwaukie Zoning Ordinance includes definitions for a number of relevant words and terms. Selected words and terms are listed below and the definitions are included as Attachment 2.

- Boarding, lodging, and rooming house;
- Home occupation;
- Hotel;
- Motel or tourist court;
- Accessory dwelling unit; and
- Dwelling unit.
- The Zoning Ordinance also includes a provision to allow a guest house (a unit without a kitchen) to occupy a lot as an accessory use provided is not occupied for more than four months within a calendar year (see Attachment 2).

D. Permitted Uses and Zoning

Under today's regulations, the zoning ordinance does not allow any form of short-term rental housing in the City's low density residential zones (R-5, R-7, and R-10). Neither Bed and Breakfasts nor Boarding, Lodging, and Rooming houses are permitted in the zones. Bed and Breakfasts and Boarding, Lodging, and Rooming Houses are both allowed through the conditional use process in the Medium and High Density Zones. In addition, approval through the conditional use process is required to allow a hotel or motel in the R-2, R-1, and R-1-B zones. The City's proposed and adopted mixed use zones (DMU, GMU, and NMU) would allow Bed and Breakfasts and Hotel/Motel uses as permitted uses (The DMU has been adopted and goes into effect on October 31, 2015; the GMU is in the process of being adopted by the City Council; hearings on NMU are just beginning at the Planning Commission). These zones would also allow Boarding, Lodging and Rooming Houses through the conditional process. Under current provisions in the GC zone, Bed and Breakfasts and Hotel/Motel uses are allowed by conditional use and Boarding, Lodging, and Rooming Houses are not allowed. None of the uses are currently allowed in the CL zone. See Attachment 3 for a comparative table.

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E. Permit/Development Review - Decision Types

The City follows four types of review procedures to review and issue various permits. Each are described briefly below. Additional review procedures (not included) are used for decisions regarding zone changes, plan amendments, and code text amendments.

Permit/Development Review - Decision Types						
Review Type	**Typical Use**	**Decision Maker/ Criteria**	**Public Hearing**	**Notice**	**Planning Fee**	**Appeal Body**
Ministerial Review	Res. Building Permit Plan Check; Home Occupations[1]	Planning Staff – Verifies that standards are met	None	None	$0–200 fees by other depts.[2]	None
Type I – Ministerial Review	Commercial development review	Planning Director – Makes findings that standards are met	None	Notice of decision goes to the NDA and applicant	$200[4]	Planning Commission
Type II – Administrative Review	Minor variances; Land divisions[3]	Planning Director – Makes findings that criteria are met	Only if appealed	Yes – to NDAs and neighbors	$1000[3,4] plus $200 for pre-ap	Planning Commission
Type III – Quasi-judicial Review	Conditional Use; Major variances	Planning Commission - Makes findings that criteria are met	Yes	Yes – to NDAs and neighbors	$2000[4] plus $200 for pre-ap	City Council

[1] Home occupation review is not a permit but is conducted as a business registration completed by the finance department. Planning's role is limited to verifying that the use allowed in the zone.
[2] There is a $25 to $200 plan check fee (minor/major) for planning services – collected by the Building Dept. There is no planning related fee for a home occupation business registration.
[3] Fees for land divisions are based on the number of lots. Minor land partitions are $2000.
[4] Depending on the application, there may also be fees related transportation impacts and systems development charges. These can be significant ($3500+).

F. Standards and Criteria

Select standards and criteria that may be relevant for a discussion about short-term rentals include the following:

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MMC 19.604 GENERAL PARKING STANDARDS

Minimum Parking Requirement

- Single Family Dwelling – 1 off-street space per dwelling unit
- Accessory Dwelling Unit – 2 off-street spaces (one per dwelling)
- Motel, hotel, boarding house – 1 off-street space per unit
- Bed and Breakfast – 1 space per lodging unit and one for the permanent residence

MMC 19.507.1 HOME OCCUPATION STANDARDS

Home occupation uses are allowed by right; however, they are subject to limitations to ensure compatibility with residential uses. A home occupation shall:

A. Be incidental and accessory to the residential use of the property.
B. Maintain the residential character of the building and premises.
C. Not have the outward appearance of a business.
D. Not detract from the residential character of the neighborhood.
E. Be owned and operated by an occupant of the dwelling.

MMC 19.905.4 CONDITIONAL USE APPROVAL CRITERIA

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.
   2. The operating and physical characteristics of the proposed use will be reasonably compatible with, and have minimal impact on, nearby uses.
   3. All identified impacts will be mitigated to the extent practicable.
   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.
   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.
   6. The proposed use is consistent with applicable Comprehensive Plan policies related to the proposed use.
   7. Adequate public transportation facilities and public utilities will be available to serve the proposed use prior to occupancy pursuant to Chapter 19.700.

KEY ISSUES - DISCUSSION

There are a wide variety of options and issues related to regulation of short-term rental housing. Various options are described below.

Land Use/Approach

The City Council directed staff to develop a more flexible approach for short-term rental housing in Milwaukie. Staff is working under the assumption that it should be possible for property owners and occupants in single family districts to operate short-term rentals. The key issue is how we permit more flexibility while limiting impacts on neighbors.

One option is for the City to allow short-term rental of rooms as an accessory use to a residential dwelling with some limitations. This would mean that people could rent out rooms in

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their houses as a by-right use. If someone wanted to exceed the limitations (rent out more rooms, hold events) they would need to get approval through a conditional use process. These options are listed below:

- Accessory Use – Short-term rentals could be permitted by-right as an accessory use subject to specific limitations (e.g. a limitation on the number of rooms rented or the days rented per year).
- Conditional Use – Short-term rentals that exceed the specified limitations could be required to go through a conditional use process. An alternative would be for all short-term rentals to be approved through the conditional use process. This is how Bed and Breakfast businesses are currently permitted in the City's medium and high density zones.

Use Limitations

- Hosted and Unhosted Rentals – Are there special limitations needed for unhosted rentals? Some communities require the owner or operator to occupy the property for a set number of nights per year (Portland requires the operator to be there 270 nights per year). Note: This is a difficult standard to enforce.
- Number of Rooms Available for Rent – Some communities limit the number of rooms that can be rented (Portland has a two-room limit for their by-right approval process). Unhosted rentals would need an exemption or a different type of limitation – maybe related to the number of cars.
- Number of Nights Per Year or Per Month – A limitation on the number of nights the units could be rented may be a way to limit neighborhood impacts. At a meeting on September 23, Milwaukie operators expressed opposition to this approach stating that it would potentially limit the positive economic impact guests have on the local economy – especially local restaurants.
- Event Limitations – Conflicts sometimes arise when short-term rental facilities like bed and breakfasts hold events such as weddings, reunions, or retreats. These can often result in more vehicle trips and more intense short-term activity on the site. It may be appropriate to place limits on the scale of any event held at a short term rental facility. Operators that wish to exceed the limit may be required to go through a conditional use procedure to manage neighborhood impacts.

Approval Process

There are a number of options to consider for how short-term rentals could be reviewed and approved – these range from an over the counter business registration for a home occupation to a full-blown conditional use application. Options are listed below.

- Home Occupation – Operators of short-term rental businesses would be required to register as a home occupation with the Finance Department. No notice is required for Home Occupations. Planning does a simple review to make sure code requirements are met – specifically that the proposed use is allowed as a home occupation.
- Type I - Ministerial Review – Type 1 is similar to the process for the Home Occupation but planning conducts a more formal review and makes findings that the use complies

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with the code. Notice of a Type I decision is provided only to the applicant and the property owner.

- Type II – Administrative Review – Notice of a pending review is sent out to surrounding properties and the NDA. The Planning Director reviews the comments and makes a decision based on code criteria. Notice of the decision is sent to participants. A public hearing is held only if the decision is appealed.
- Conditional Use – Type III – The Planning Commission holds a public hearing on the request. Notice is sent to neighbors and NDAs. The conditional use process is intended to provide a review procedure where impacts to neighbors can be mitigated through conditions. Portland requires a conditional use review for short-term rentals where more than two rooms are being rented.

Fees/ Room Taxes

Fees and room taxes are something the City will want to consider. Today, the City of Milwaukie does not have a transient lodging tax, nor does it have any hotel/motel units or legal bed and breakfast units. There are some short-term rental businesses that operate in the City and go untaxed by the City. Some options for fees and taxes include:

- Land use application fees – Current planning fees range from $200 for a Type I review to $2000 for a Type III review. The Type II application fee is $1000. Typically under a Type II or Type III process an applicant will also be required to participate in a preapplication conference. The fee for a preapplication conference is $200.
- Annual Business Registration Fee – The City requires that businesses register with the City and pay a $110 annual registration fee. The process is administered by the Finance Department.
- Transient Lodging Room Tax – The City does not currently have a transient room tax. It is expected that the City Council will enact such a tax if short-term rentals are allowed. Clackamas County has a transient room tax of 6% but the County exempts rooms rented in private homes where the room rental is incidental to the primary residential use of the structure. In Portland, there is a 6% City room tax and a 5.5% County room tax on short-term rentals. Portland and Multnomah County have an arrangement with Airbnb to collect the tax and remit the tax revenue on a monthly basis.

Inspections/Monitoring

- Monitoring – Some jurisdictions, including Portland, require that the operator of the short-term rental keep a log book of visitors and that these records be made available to the local government for inspection.
- Building inspections – Some jurisdictions, including Portland, require inspections of short-term rentals prior to licensing or permitting the use. The inspections are intended to verify that the sleeping room meets building code requirements including egress requirements. Given that the short-term rentals are considered an accessory use, Portland only requires that the sleeping room meet the requirements that were in place

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at the time the sleeping room was created. Upgrades to current standards are not required. Portland requires inspections every six years.

- Smoke detectors – Inspections are also required in some jurisdictions to verify that smoke and carbon monoxide detectors are installed and operating.

Site Improvements/Charges

- Site Improvements - In Milwaukie, a change in use from residential to commercial use generally requires that public facilities be upgraded. Depending on the situation, this may include installation of curbs, sidewalks, parking, storm drainage and landscaping. Site improvements would not be required for small-scale short-term rentals because these would not be considered a change of use.
- Off-Street Parking – Some jurisdictions require off-street parking for short term rentals. It is typical to find one space required for the operator and one for each rental room – this is Milwaukie's requirement for Bed and Breakfasts. In Milwaukie, parking standards may create a significant limitation because required off-street parking cannot occur in the front yard, including a driveway in front of the house. .
- Screening – Screening is typically not required for small scale rentals. The assumption is that they will fit in and add character to the neighborhood.
- Systems Development Charges – Systems development charges are assessed for new development and changes in use where system impacts are increased. The transportation systems development charge is $1,920 per vehicle trip calculated for the PM peak hour of travel. If Milwaukie takes the approach that small-scale short-term rental housing is an accessory use to a residence, the systems charges would not be imposed because no actual change in use is occurring – residential before and residential after.

KEY ISSUES

Staff has identified the following key issues for the Planning Commission's discussion.

- Should short-term rentals be allowed as an accessory use to a residential use when no more than two rooms are being rented?
- Should short-term rentals be required to obtain a conditional use permit when more than two rooms are being rented?
- Should we allow short-term rentals (up to two rooms) through the simple home occupation process or require a Type I review?
- Should hosted and unhosted rentals be allowed? Under what conditions?
- Should we place limits on the scale of events held at Short Term Rental facilities?
- Does the Commission have any suggestions regarding fees and taxes?
- Should we follow the Portland model where sleeping rooms only need to meet the standards in place at the time they were built?

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- Is it appropriate to not consider it a "change in use" when a home is converted to a short-term rental? Does it make a difference as to the number of rooms rented?
- Are there site improvements that should be required for short-term rentals? Screening? Parking? Given the approach that the units are accessory to the primary residential use, should we assume that parking spaces in the front yard can be counted to meet the off-street parking requirements?

RECOMMENDATION

There is no formal staff recommendation. Staff is seeking direction from the Commission regarding development of a proposal to take to a public hearing in December.

ATTACHMENTS

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

	PC Packet	Public Copies	E-Packet
1. Interim Approach for Short-Term Rentals - February 23, 2015	☒	☒	☒
2. Definitions and Accessory Uses (MMC Excerpts)	☒	☒	☒
3. Base Zones Comparisons (MMC Excerpts)	☒	☒	☒

Key:

Early PC Mailing = paper materials provided to Planning Commission at the time of public notice 20 days prior to the hearing.

PC Packet = paper materials provided to Planning Commission 7 days prior to the hearing.

Public Copies = paper copies of the packet available for review at City facilities and at the Planning Commission meeting.

E-Packet = packet materials available online at http://www.milwaukieoregon.gov/planning/planning-commission-135.

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Short-Term Rental Housing in Milwaukie

February 23, 2015

Issue

Over the past few months, the City has received a few complaints about property owners renting out their houses or accessory buildings through airbnb.com or other similar websites such as VRBO.com. In response to these complaints, the City sent notices to all property owners who had listings on airbnb and VRBO. In most of the cases, short-term rentals have been operating in residential neighborhoods in zones where the uses are either not permitted or are only permitted through a conditional use process before the Planning Commission. During the same recent time frame, three new City Council members have taken office and there is strong interest in providing more flexibility to accommodate short-term rental housing and other new "sharing economy" businesses. This memo proposes an interim, partial solution to the current conflict and suggests a process for resolving the issue later in 2015.

Permitted Locations

Title 19 Zoning of the Milwaukie Municipal Code sets forth requirements for permitted uses in the City and provides limited opportunities for short-term rental housing. The code lists the following uses that are considered to be different types of short-term rental housing:

- Boarding, lodging, and rooming house;
- Hotel or motel; and
- Bed and breakfast.

In low density residential zones (R-5, R-7, and R-10), hotel/motel and bed and breakfast uses are not permitted. Boarding, lodging, and rooming houses are permitted through a Type III conditional use review process.

In medium and high residential zones (R-3, R-2.5, R-2, R-1, and R-1-B), bed and breakfast uses and boarding, lodging and rooming house uses are permitted through the conditional use process. Hotel/motel uses are allowed by conditional use in the R-2, R-1, and R-1-B zones. Hotel/motel uses are not allowed in the R-3 and R-2.5 zones.

The more intense commercial zones generally allow some form of short-term rental housing, while the zones with a more neighborhood or retail focus do not. Hotel/motel uses are allowed outright in the R-O-C, Downtown Commercial, and Downtown Office zones (as proposed, they will be allowed throughout downtown in the new Downtown Mixed Use Zone). Hotel/motel uses are allowed by conditional use in the C-L, C-G, M, and M-TSA zones. They are not allowed in the C-N, C-CS, and the BI zones. Bed and breakfast uses are not allowed in commercial or industrial zones. It is possible that a bed and breakfast could be allowed in a zone where a hotel/motel is allowed if the facility is determined to be "similar" to a hotel/motel. The R-O-C zone is the only commercial/industrial zone to allow boarding, lodging, and rooming house uses and they are only permitted as conditional uses.

Interim Approach

Rather than completely shut down the current group of property owners who have been renting out their homes for short-term rental housing, staff has developed an interim approach that will allow limited rental of rooms and units. As outlined above, short-term rentals are generally not permitted in low density residential areas but that is where many of the existing properties that have recently been listed on airbnb are located. The interim solution is to allow rentals to occur as "long-term rental

housing". Long-term rentals are considered those that occur over a 30-day period or longer. In Milwaukie and in most other jurisdictions, local governments do not regulate long-term rentals where a property owner or lessee rents out a room on a month-to-month basis. The interim approach allows "short-term" rentals provided that they function in a manner that is similar to a month-to-month long-term rental, i.e., no room or unit may be rented more than once in a 30-day period.

This approach is intended to allow property owners to continue to rent out rooms or units on an interim basis until a more permanent solution can be developed.

Long Term Approach

The zoning code currently places strong limits on bed and breakfasts and other short-term rental housing facilities in Milwaukie. It is assumed that these restrictions were put in place based on a concern about impacts on single family neighborhoods. To develop a permanent approach, it is proposed that we engage neighborhood leaders and the operators of short-term rental housing facilities in a community conversation to identify the right regulatory approach and standards for these uses. The following timeline is proposed:

- June to August – Conduct three meetings with stakeholders to develop a proposal
- September to November – Conduct a worksession and hearing at the Planning Commission
- December – Adopt ordinance amendments at the Council.

Other Issues to Consider

There are a number of key issues that will need to be considered during the development of new code standards for short-term rental housing. These include:

- Process and financial considerations – Will the City require a business license for operators? Will there be a room tax? Will the City require inspections of the facilities?

- Size and definitions – How many rooms can be rented? If rooms have separate kitchens and entrances, should they be required to meet the same requirements Accessory Dwelling Units? How are short-term rentals similar to Milwaukie's a guest house regulations which limit occupancy to 4-months/year with no remuneration?

- Impacts and improvements – How are neighborhood impacts to be measured? What are the traffic and parking impacts? Are the operators required to pay SDCs for creation of new rooms or units? Should street improvements required

- Building code issues – Sometimes units have been created in violation of building codes. How does the City ensure that fire and life safety requirements are being met for rental units?

Excerpt from Milwaukie Municipal Code Sections *19.200 Definitions and Accessory Uses* and *19.503 Accessory Uses*

MMC 19.201 DEFINITIONS

"Boarding, lodging, or rooming 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. Lodging capacity is subject to provisions of the Uniform Building Code.

"Home occupation" means an occupation normally carried on at a dwelling as an accessory use to the dwelling, with the activity conducted in such a manner as to give no appearance of a business, and with no infringement upon the right of neighboring residents to enjoy the peaceful occupancy of their homes.

"Hotel" means a building or portion thereof designed or used for occupancy of transient individuals who are lodged with or without meals, and in which no provision is made for cooking in any individual room or suite.

"Motel or tourist court" means 1 or more buildings designed or used as temporary living quarters for transients.

Residential Uses and Structures:

"Accessory dwelling unit" means a second dwelling on a lot with a single-family detached dwelling. The accessory dwelling unit is incidental to, and smaller than, the primary dwelling on the lot. The accessory dwelling unit may be in a portion of the primary structure on the lot or contained in its own structure apart from the primary structure. The accessory dwelling unit includes its own independent living facilities—including provision for sleeping, cooking, and sanitation—and is designed for residential occupancy by 1 or more people, independent of the primary dwelling unit.

"Dwelling unit" means a building, or portion of a building, that includes its own independent living facilities—including provision for sleeping, cooking, and sanitation—and is designed for residential occupancy by 1 or more people. Buildings with more than 1 set of cooking facilities are considered to contain multiple dwelling units, unless the additional cooking facility is clearly accessary and the property owner has recorded a covenant with the Clackamas County Records Division, stipulating that the additional cooking facility will not be used as part of a separate dwelling unit unless permitted under this title.

MMC 19.503 ACCESSORY USES

19.503.1 General Provisions - Accessory uses shall comply with all requirements for the principal use except where specifically modified by this chapter and shall comply with the following limitations:

A. A guesthouse without kitchen facilities may be maintained accessory to a dwelling, provided that the guesthouse is not occupied for more than 4 months in a calendar year. A detached accessory dwelling unit approved per Subsection 19.910.1 is not considered a guesthouse.

ATTACHMENT 3

Table 19.301.2 Low Density Residential Uses Allowed				
Use	**R-10**	**R-7**	**R-5**	**Standards/Additional Provisions**
Residential Uses				
Single-family detached dwelling	P	P	P	**Subsection 19.505.1** Design Standards for Single-Family Dwellings and Duplexes
Accessory dwelling unit	P/II	P/II	P/II	**Subsection 19.910.1** Accessory Dwelling Units
Accessory and Other Uses				
Home occupation	P	P	P	**Section 19.507** Home Occupation Standards
Boarding, lodging, and rooming house	N	N	N	
Hotel or Motel	N	N	N	
Bed and Breakfast	N	N	N	

Table 19.302.2 Medium and High Density Residential Uses Allowed						
Use	**R-3**	**R-2.5**	**R-2**	**R-1**	**R-1-B**	**Standards/ Additional Provisions**
Residential Uses CONTINUED						
Single-family dwelling unit	P	P	P	P	P	**MMC 19.505.1**
Accessory Dwelling Unit	P/II	P/II	P/II	P/II	P/II	**MMC 19.901**
Boarding, lodging, and rooming house	CU	CU	CU	CU	CU	
Commercial Uses						
Hotel or motel	N	N	CU	CU	CU	
Bed and breakfast	CU	CU	CU	CU	CU	
Accessory and Other Uses						
Home occupation	P	P	P	P	P	**Section 19.507** Home Occupation Standards

Mixed Use and Commercial Zones – MMC 19.303 to 19.307						
Use	**DMU**	**GMU**	**NMU**	**GC**	**CL**	**Standards/ Additional Provisions**
Single-family dwelling unit	N	N	CU	N	CU	MMC 19.505.1
Accessory Dwelling Unit	N	N	CU	N	N	MMC 19.901
Boarding, lodging, and rooming house	CU	CU	CU	N	N	
Hotel or Motel	P	P	P	CU	N	
Bed and Breakfast	P	P	P	CU	N	
Home Occupation	P	N	P	N	N	MMC 19.507

P = Permitted.
N = Not permitted.
CSU = Permitted with Community Service Use approval subject to provisions of Section 19.904. Type III review required to establish a new CSU or for major modification of an existing CSU. Type I review required for a minor modification of an existing CSU.
CU = Permitted with conditional use approval subject to the provisions of Section 19.905. Type III review required to establish a new CU or for major modification of an existing CU. Type I review required for a minor modification of an existing CU.
II = Type II review required.
III = Type III review required.

Note: The DMU zone replaces the downtown commercial, downtown residential, downtown storefront, and downtown office zones. It goes into effect on October 31. The GMU zone is in the final stage of the public hearing process s at the City Council and is expected to be adopted in October. The public hearings on the NMU zone open before the Planning Commission on October 13. The GMU zone will apply to the GC and ROC zones in the Central Milwaukie area. The NMU zone is intended to apply to the CL area on 32nd Ave and the GC area at 42nd and Harrison/King.