



City of Portland, Oregon
Bureau of Development Services
Land Use Services

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Date: April 6, 2010
To: Interested Person
From: Stacey Castleberry, Land Use Services
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NOTICE OF A TYPE II DECISION ON A PROPOSAL IN YOUR NEIGHBORHOOD

The Bureau of Development Services has approved a proposal in your neighborhood. The reasons for the decision are included in this notice. If you disagree with the decision, you can appeal it and request a public hearing. Information on how to appeal this decision is listed at the end of this notice.

CASE FILE NUMBER: LU 10-108392 EN

GENERAL INFORMATION

Applicant: Emerick Architects, PC
Attn: Geno Salimena
208 SW 1st Ave, Ste 320
Portland, OR 97204

Owners: Jack and Barbara Kerfoot
16290 Katy Fwy #600
Houston, TX 77094

Jack Kerfoot
London House Level 12, 216 St Georges Terrace
Perth, WA 6000
Australia

Site Address: TL 1200 on SW Northwood Ave
Legal Description: TL 1200 0.44 ACRES, SECTION 16 1S 1E
Tax Account No.: R991161070
State ID No.: 1S1E16AC 01200
Quarter Section: 3528
Neighborhood: Hillsdale, contact Duane Hunting at 503-417-4409.
Business District: None
District Coalition: Southwest Neighborhoods Inc., contact Leonard Gard at 503-823-4592.
Plan District: None
Other Designations: Terwilliger Design District
Zoning: R10cd
Case Type: EN
Procedure: Type II, an administrative decision with appeal to the Hearings Officer.

Proposal: The owners of the lot immediately south of 5128 SW Northwood Avenue propose to construct a new single dwelling residence. The house, along with attached garage, rear deck, patio, and front entry porch, will cover approximately 2,000 square feet of the 19,166 square-foot lot. In order to minimize the disturbance footprint on the site, the house will be positioned

at the front property line, which is allowed by right in Portland's environmental overlay zones. The construction area needed to build the house will be approximately 4,540 square feet in area.

The site is densely forested, and in order to construct the residence, 15 trees will have to be removed from the lot. Two additional trees will be removed from adjacent right of way. A total of 292 diameter inches of trees will be removed from the environmental zone.

The applicant proposes to treat stormwater from the new structures in two stormwater flow-through planter boxes attached to the house (45 square feet and 75 square feet respectively).

The site is within the City's Environmental Conservation overlay zone. Certain standards must be met to allow the work to occur by right. If the standards are not met, an Environmental Review is required. In this case, construction of the new house will require removal of approximately 292 diameter inches of native trees. Standard 33.430.140 J is therefore not met by the proposal and the work must be approved through an Environmental Review.

In order to mitigate the unavoidable impacts related to construction of the new house, the applicant proposes replanting the temporary disturbance area around the house, as well as a "buffer" area between the house and the remaining forested portion of the lot, with 34 native trees and 69 native shrubs. The rear 15,000 square feet of the lot will be preserved in native forest and will remain undisturbed by this proposal.

The site is also situated within the City's Terwilliger Design District. In this district design review is applicable only when the proposed development can be viewed from Terwilliger Boulevard as stated in 33.420.045 C. The applicant has made observations from Terwilliger Blvd. and due to the topography and dense evergreen vegetation there are no views of the development area from Terwilliger. Therefore Design Review is not required.

Relevant Approval Criteria:

In order to be approved, this proposal must comply with the approval criteria of Title 33. The relevant criteria for Environmental Review of the new house are:

- **Section 33.430.250 E** Other Development in the Environmental Conservation zone

ANALYSIS

Description of the Site: The site is in Portland's Southwest Hills along the west edge of Keller Woodland Park. It is an undeveloped lot located east of SW Northwood Ave. It is an infill site in an R10 zoned neighborhood surrounded by single-family homes on both sides and across the street. The location of the property is in the Central Part of the Terwilliger Parkway where the vast majority of the surrounding lots are in the Environmental Conservation Overlay "c". SW Northwood Ave is a 24' wide street that transitions from an improved road to a unimproved gravel road just to the south of the southern property edge. To the north of the property, the gravel road continues past one more residence, transitioning to a pedestrian trail connecting the lower and upper sections of SW Northwood Ave.

The site has been designated by the City of Portland as a hazard area for landslides. The owners have contracted with a geotechnical engineer to evaluate the geology of the site and make recommendations for the methods of construction. The evaluation is included with this review application.

The west end of the site, which abuts SW Northwood Avenue, is quite steep. This creates a challenge in making a physical connection to Northwood with the proposed residence; the location of the front property line is at an elevation as much as 11 feet below the grade of the existing road. Because of the topography, most of the residences on the east side of Northwood are at a 0-foot setback from the front property line. The proposed residence will maintain this same development pattern.

The original construction and excavation for SW Northwood Ave. has created an area of fill at the front property line. In addition to the non-native soil pushed onto the site, clearing of the road introduced a swath of solar access to this area. As a result of the increase in natural light, a grove of second growth deciduous maples has successfully established itself and extends downward approximately 50 feet from the front property line. The rest of the lot is also heavily wooded with other native trees and shrubs; however, a greater concentration of trees occurs at this area adjacent the right of way.

English ivy also dominates the west end of the property. It is densest at the road's edge and starts to taper off 50' from the front property line. Below this, the density of the ivy diminishes due to the heavy shade provided by the tree canopy.

Below the site to the east is property owned by the Three Rivers Land Conservancy (TRLIC). This is a 42-acre contiguous piece of land with dense native forest and is protected from development. The TRLIC property parallels the west side of Terwilliger Boulevard below. There is no visual connection to Terwilliger from the proposed residence due to the topography and the dense vegetation.

Infrastructure: The Portland Water Bureau notes that there is an existing 6-inch water main in SW Northwood Avenue that can serve the new residence (Exhibit E.2). The static water pressure is estimated to be between 79 and 99 psi.

The Bureau of Environmental Services identified an existing 8-inch combination sewer line in SW Northwood with a manhole directly in front of the property. There is a public 8-inch sanitary only line that flows into the manhole (Exhibits E.4 and E.5).

The Portland Fire Bureau has indicated that Fire department access drives must be 20 feet in width and not in excess of 15% slope, that a Fire department turn around is required, and that a fire hydrant with adequate flow and pressure is required by the Fire Code (Exhibit E.3). The Fire Bureau has also indicated that these issues can be resolved at the time of building permit application, and possibly through a Fire Code appeal.

Portland Transportation stated that they will not require right of way improvements for this new residence. However the property owner will be required to participate in maintenance of the substandard street in this location (Exhibit E.7).

Zoning: The zoning designation on the site includes the Residential 10,000 (R10) base zone, with Environmental Conservation ("c"), and Design ("d") overlay zones (see zoning on Exhibit B).

The R10 zone is intended to foster the development of single-dwelling residences on lots having a minimum area of 6,000 square feet. Newly created lots must have a minimum density of 1 lot per 10,000 square feet of site area. The provisions of this zone allow this use; these provisions are not specifically addressed through this Environmental Review.

The Design overlay zone promotes the conservation and enhancement of areas of the City with special historic, architectural or cultural value. If the project is visible from SW Terwilliger Boulevard, Type III Design Review is required, however the applicant determined that it is not visible from Terwilliger. Therefore no Design Review is required.

Environmental overlay zones protect environmental resources and functional values that have been identified by the City as providing benefits to the public. The environmental regulations encourage flexibility and innovation in site planning and provide for development that is carefully designed to be sensitive to the site's protected resources. They protect the most important environmental features and resources while allowing environmentally sensitive urban development where resources are less sensitive. The purpose of this land use review is to ensure compliance with the regulations of the environmental zones.

Environmental Resources: The application of the environmental overlay zones is based on

detailed studies that have been carried out within ten separate areas of the City. Environmental resources and functional values present in environmental zones are described in environmental inventory reports for these study areas.

The project site is mapped within the *Southwest Hills Resource Protection Plan* as Site # 114, "Terwilliger Parkway Central." Resources and functional values of concern on the project site include wildlife habitat, forest, perennial and seasonal creeks, groundwater recharge, scenic, historic, cultural, recreational and open space. This is a 455-acre site with an overall habitat quality rating of moderately high.

- Generalized description of the site's forest is second growth conifer topping hardwood with an average age of 30-50 years old.
- Extensive tree-covered open space, the Terwilliger Parkway recreation trails and the proximity to downtown make it a significant site.
- The Terwilliger Parkway is connected to the 40-Mile Loop, regional trail system and the tree-covered open space contributes to the overall visual quality and identity of the city.

Impact Analysis and Mitigation Plan: A full description of the proposal was provided on pages 1 and 2 one of this report. The following discusses development alternatives that were considered by the applicant, as well as the proposed construction management plan, mitigation and monitoring proposal.

Development Alternatives: The applicant provided a brief alternatives analysis which is summarized here.

The proposed residence is at the front property line, near existing developed area along SW Northwood Avenue. Other possible building alternatives include reducing the footprint of the building and increasing the height of the house to maintain a similar sized living area. The proposed house is designed to provide all of the shared living spaces on the main floor—the living room, dining room, kitchen, entry, and stair hall. These rooms are impractical to separate from the main floor as they serve the daily functions of the inhabitants and provide for the arrival of guests.

The applicant can not propose any practical reduction in living space on the main floor; however, the proposed development includes an attached garage. An alternative would be to propose the removal of the 20 foot wide, by 24 foot deep garage. This would reduce the length of the house by 20 feet.

The elimination of the garage would create onerous challenges for residents of the house. The Zoning Code requires at least one off-street parking area (33.266. Table 266-2) for single dwelling lots. The driveway bridges across the City's right of way and therefore is not an approved location to park a vehicle. The garage accommodates this parking requirement. The garage is the main point of utilitarian access to the house. For a house on a steeply sloping site it is difficult to accommodate the functions of a typical residential space. House and yard maintenance demand a certain amount of space and storage. Beyond storing a vehicle, the garage gives the inhabitants a place to locate their maintenance supplies as well as providing locations for necessary utility functions like hot water heaters and HVAC equipment. Ultimately, the garage eliminates the need for exterior storage sheds and on-street parked cars, thereby preserving a natural, uncluttered setting. For these reasons it is impracticable to remove the garage.

The alternative proposal of reducing the floor plan by making the house more vertical is also challenging and not practical. The house design already takes advantage of space below the steeply sloping site. The nature of the stepped concrete foundations allow the design to accommodate the more private spaces like the bedrooms, bathrooms, office and family room in the floors below. The proposed house design claims two additional floors with the stepped concrete foundation for a total of three stories. To add another story by shortening the length

of the house is not practical. It puts a structural strain on the engineering of the house beyond 3 stories and would create the requirement of larger foundations (more excavation) for gravity and lateral loading.

Currently, the house has an unimposing single story front façade from SW Northwood. With an additional floor, the house would appear massive from all angles, especially the side and rear elevations. A taller house would also block forest views and natural light to the pedestrian users that enjoy trail access at the lower end of Northwood Ave. It is impracticable to add a 4th story to the proposed house design.

Construction Management Plan (CMP): The applicant has provided the following description of proposed construction management practices for the project.

- Delivery trucks, machinery, material storage, labor access and scaffolding will be able to access the structure from the road.
- Lengthy access roads or paths are not necessary except those which immediately encircle the house. A construction access way (varying from 5 feet to 20 feet wide) is proposed around the house and defined by the “limit of disturbance” line on the Proposed Site Plan.
- All of the excavation is proposed within the footprint of the house itself. The excavator will leapfrog from one side of the house to the other, removing the soil from the site as he digs down. Once the excavator completes the lowest foundations the equipment will be craned off-site. This method of excavation will successfully maximize conservation of the natural resources.
- The design of the foundations requires that unrestrained retaining walls be backfilled before completion of the wood framed structure. This provides a flat and stable location for staging framing materials and equipment near the street and away from undisturbed habitat.
- The applicant proposes a 5-foot tall steel fencing secured to the ground with 7-foot tall metal posts to prevent it from being moved by contractors, sagging or falling down. All of the fencing will have signage clearly stating the purpose of the fencing as a tree protection fence. This fence is also part of the tree protection plan clearly outlined by the arborist’s attached report.
- One tree (#12) will receive additional protection because the root zone of the tree is partly within the disturbance area. The fencing will protect the tree but additional protection measures are proposed. The root zone in the disturbance zone will receive a geotextile fabric covered with 12 inches of wood chips and extend 12 feet radially from the tree. This process is described in the Arborist Report.
- For the remaining trees, the applicant has supplied an Arborist Report outlining protection measures (Exhibit A.2).
- The applicant proposes a silt fence along the downhill side of the disturbance zone. The applicant states that the north, south and west sides have no need for a silt fence due to the direction of natural slope on the terrain, and that bio-bags are not necessary due to the unimproved nature of SW Northwood Ave.
- Stormwater will be handled as recommended by Bureau of Environmental Services and the consulting geotechnical engineer. Concrete flow-through planters on the west side of the house will detain and drain to the combination sewer under SW Northwood Ave. The central planter is 8 feet by 8 feet and the northern planter is 5 feet by 14 feet, for a total area of 130 square feet. This will adequately service the 1650 square feet of roof area. The outflow lines will tie together and connect to the combination sewer line through the right of way.
- Equipment and material storage will have to be located in the right of way. Once all the ground and foundation work has been completed, the wood floor decks will help stage construction materials.

Unavoidable Impacts:

The proposal meets the maximum disturbance area standard of 5,000 square feet, as construction of the proposed residence will only disturb 4,540 square feet in resource area.

The applicant's project description notes removal of 15 trees and 292 diameter inches, but this does not include trees in the right of way that are also in the environmental zone. Native trees on the site and in the right of way are quite dense in the area proposed for development, it will therefore be necessary to remove 18 trees, with a total diameter of 301 inches, to construct the house. This represents 76 diameter inches above what is allowed by the environmental standards. Trees to be removed are primarily fast-growing big leaf maples.

Proposed Mitigation: The mitigation measures proposed by the applicant are described below:

The infestation of invasive English Ivy presents an opportunity for habitat restoration as a means of mitigation. The ivy is densest at the area of the site adjacent the road and tapers off down the site, giving way to salal and sword fern. Due to the amount of ground work required by the construction of the proposed residence, the English Ivy will be removed in the permanent disturbance area and right of way. The owners will be removing all ivy around the newly mitigated trees and shrubs proposed on the Mitigation Plan. This will help to ensure their survival on the site. Lastly, all ivy present on and around the native site trees will be removed. Removal of ivy in the permanent disturbance zone, the areas around the native trees and each of the new plantings will largely eliminate the invasive species.

Additional proposed mitigation measures include:

- The permanent disturbance area will be made clear of invasive species and replanted to control surface erosion. A portion of the new native trees & shrubs are mitigated in this area.
- The planting of 69 native shrubs and 34 native trees on the site will minimize supplemental watering. Irrigation will not be necessary except for hand-watering in the first summer.
- The proposed plantings are selected from the Portland Plant List.
- Mitigation planting will be installed upon completion of construction in the season and by the methods recommended by project landscape architect.
- Upon completion of the proposed construction, all devices (fencing, fabric & wood chips) for protected trees areas will be removed.
- The proposed Mitigation Plan will be installed and maintained under the regulations outlined in the Section 33.248.040.A-D (Landscape & Screening.)

Monitoring Plan for Mitigation:

A Monitoring and Maintenance Report will be submitted after installing the required plantings. The Monitoring and Maintenance Report will include the information below:

- Identify the person doing the monitoring, maintenance, and submitting the reports.
- The number and type of trees that have been installed. If any trees die, they must be replaced. The required number of trees to survive is 100% (replacement must occur within one planting season.)
- The number and type of shrubs installed. If less than 80% of the mitigation planting area is covered with shrubs or groundcovers at the time of an annual count, shrubs and groundcovers shall be planted to reach 80% cover (replacement must occur within one planting season.
- A list of replacement plants that were installed.
- Photographs of the mitigation area and a site plan, in conformance with approved Exhibit C.5 Mitigation Plan
- A description of the method and frequency for the watering of trees, shrubs, and groundcovers for the first two summers after planting.
- An estimate of percent cover of invasive species (English Ivy, Himalayan blackberry, reed canary grass, teasel, clematis) within 10 feet of all plantings. Invasive species must be kept to a maximum of 20% cover during the monitoring period.

Land Use History: City records do not indicate prior land use reviews for this site (see Exhibit G.2).

Agency and Neighborhood Review: A Notice of Proposal in your Neighborhood was mailed on February 19, 2010.

1. Agency Review: Several Bureaus and agencies have responded to this proposal. Please see Exhibits E.1 through E.5 for details. The comments are addressed, above in the description of infrastructure, and below in the appropriate findings for review of the proposal.

2. Neighborhood Review: No written responses were received from either the Neighborhood Association or notified property owners in response to the proposal.

ZONING CODE APPROVAL CRITERIA

33.430.250 Approval Criteria for Environmental Review

An environmental review application will be approved if the review body finds that the applicant has shown that all of the applicable approval criteria are met. When environmental review is required because a proposal does not meet one or more of the development standards of Section 33.430.140 through .190, then the approval criteria will only be applied to the aspect of the proposal that does not meet the development standard or standards. In this case the proposed house does not meet the development standard that limits tree removal to 225 diameter inches.

Findings: The approval criteria which apply to the proposed new residence are found in Section 33.430.250 E. The applicant has provided findings for these approval criteria and BDS Land Use Services staff have revised these findings or added conditions, where necessary to meet the approval criteria.

33.430.250 E. Other development in the Environmental Conservation zone or within the Transition Area only. In Environmental Conservation zones or for development within the Transition Area only, the applicant's impact evaluation must demonstrate that all of the following are met:

- 1. Proposed development minimizes the loss of resources and functional values, consistent with allowing those uses generally permitted or allowed in the base zone without a land use review;**

Findings: For this 19,166 square foot lot, the base zone allows 4,350 square feet to be covered by buildings, according to Table 110-4 of the Zoning Code. The building footprint of the house, garage and decks will be less than 2,050 square feet, which is well below the allowed building coverage of the base zone.

- In order to minimize site disturbance and facilitate access to the home, the subsurface foundations for the proposed house have a “zero”-foot front setback. This sets the above-ground structure within 4 feet of the street lot line. This meets the intent of the reduced setbacks as prescribed for environmental review zones (33.110.220 exception D.3) and results in permanent disturbance area that is less than the 5000 square feet allowed for this site.
- The actual disturbance area is 4,540 square feet.
- Stormwater management facilities for the site have been recommended by BES and the project geotechnical engineer as flow-through planters with release into the combination sewer line under SW Northwood Avenue. No additional temporary disturbance area is necessary due to the location of the existing utilities at the street and no outfall trenching is necessary for stormwater management
- The proposal preserves 15,000 square feet of the 19,200 square foot lot in a native condition with contiguous undisturbed habitat shared by the adjacent properties.
- The location of the house is as close to the front property line as possible. The long narrow plan of the house (approximately 22 feet wide by 74 feet long) clusters the house close to the street with the pre-existing utilities and city services.

The steep sloping site allows the design to take advantage of the space below the house to meet the program needs of the owners.

- The sloping nature of the site allows 2 stories beneath the main street level of house.
- Stacking of the floors greatly reduces the footprint of the house and minimizes disturbance to the site.
- The vertical development of the house requires a stepped foundation which acts as a significant retaining wall to stabilize the existing slope conditions. The foundation design uses a soil nail wall and tie-back anchors on the lowest level of the proposed residence as a method to minimize native soil excavation and resist sliding. Additionally, on the downhill side of the house, the foundation will rest on a concrete grade beam supported on 24-inch drilled piers. This was recommended by the geotechnical engineer to minimize excavation and the effects of soil creep.
- Ultimately, the combination of construction methods proposed for the foundation greatly reduces the amount of soil removal and disturbance to the site compared to conventional stepped retaining walls (see the geotechnical report as Exhibit A.4 in Application case file).

The proposed development includes an attached garage.

- The garage is as close to the street as possible given the footing required for the front northwest corner. Therefore the length of the driveway is minimized to crossing over the right of way.

The findings provided by the applicant, above, demonstrate that the proposal minimizes impacts to the environmental zone consistent with uses that are allowed in the base zone by right and this criterion is met.

2. Proposed development locations, designs, and construction methods are less detrimental to identified resources and functional values than other practicable and significantly different alternatives;

Findings: On pages 4 and 5, alternatives considered by the applicant were described. The applicant describes reasons why reducing the building footprint by adding a fourth story, or removing the garage are not practicable. The applicant further describes how the placement of the building at the front property line and the use of a stepped foundation minimizes potential site disturbance. The applicant has proposed a design for development that has the least impact on protected resources in the environmental overlay zone.

Further, construction of a dwelling entirely outside of the resource area is not practicable or feasible at this location because the site is entirely within the resource area of the environmental zone.

This criterion is met.

3. There will be no significant detrimental impact on resources and functional values in areas designated to be left undisturbed;

Findings: The construction management plan and mitigation plan are described on pages 5 and 6 of this report. The construction management plan will be effective because it provides realistic limits to disturbance while containing the necessary elements (e.g., construction fencing, staging areas, stormwater management, tree protection) and it is apparent that the applicant has carefully thought through the potential impacts of construction activities on the property. Some revisions will be required as described below.

The applicant proposed using 5-foot tall steel fencing secured to the ground with 7-foot tall metal posts for tree protection at the edge of the construction area, however the Zoning Code tree protection requirements (33.248.060 B) stipulate the use of 6-foot high chain link

fence secured to the ground with 8-foot metal posts, which will be required as a condition of approval.

The applicant's arborist's report outlines specific pre-construction, during-construction, and post-construction procedures to be taken to protect the remaining trees. These procedures will be required to be followed, and are attached to this Decision (Except Exhibit A.2).

The applicant proposes a silt fence along the downhill side of the disturbance area, stating that the north, south and west sides have no need for a silt fence, due to the direction of natural slope on the terrain, and that bio-bags are not necessary due to the unimproved nature of SW Northwood Ave. BDS requires all erosion control devices to be installed on the inside (the construction side) of the temporary construction fence so as to keep all ground disturbance and access within the area identified for disturbance. BDS staff will require standard erosion control practices on the north, south, east, and west sides of the construction area to protect surrounding areas from impacts of soil moving off site.

With conditions pertaining to construction and tree protection fencing and erosion control practices during construction, this proposal will provide protection of the resources and functional values in areas designated to be left undisturbed. Therefore, this criterion is met.

4. The mitigation plan demonstrates that all significant detrimental impacts on resources and functional values will be compensated for;

Findings: The proposed mitigation plan is described on page 6 of this report. The mitigation plan will compensate for impacts at the site for the following reasons:

- Proposed mitigation consists of planting 34 native trees and 69 native shrubs, plus soft rush and sword fern and a seed mix of woodland plants, as well as replanting all temporary disturbance areas with native vegetation.

However, a tally of all trees in the resource area, proposed for removal, totals 301 diameter inches of tree to be removed, not 292 inches, as indicated by the applicant. Trees to be remove from the resource area, even if they are in the right of way, must be mitigated. Thus a total of 43 trees and 72 shrubs will be required to be planted on the site.

- The applicant proposes extensive English ivy removal from the temporary disturbance area, from areas around mitigation plantings, and from trees on the remainder of the site.
- A two-year monitoring report is described by the applicant and will ensure survival of all proposed mitigation plantings. With conditions for mitigation planting and maintenance and monitoring, this criterion can be met.

Monitoring: The property owner will be responsible for the monitoring and maintenance of the Mitigation Plan. The owner will inspect the plantings at six months and at one year after the initial planting, to check for the survival and vigor of the plantings. Any dead or dying plants will be replaced in kind. The property owner will check the plantings again one year after the first growing season to inspect for their health. Generally after two years, all plants should be well established and not require further monitoring or maintenance.

With conditions for additional mitigation plantings, for ivy removal, and for maintenance and monitoring, this criterion can be met.

5. Mitigation will occur within the same watershed as the proposed use or development and within the Portland city limits except when the purpose of the mitigation could be better provided elsewhere; and

Findings. Because the proposed mitigation will occur adjacent to the proposed house, on the same site, and within the c- zoned area east of the dwelling, the mitigation will occur within the same watershed of the proposed use. Therefore, this criterion is met.

6. The applicant owns the mitigation site; possesses a legal instrument that is approved by the City (such as an easement or deed restriction) sufficient to carry out and ensure the success of the mitigation program; or can demonstrate legal authority to acquire property through eminent domain.

Findings: The applicant is a consultant. The property owner who owns the subject site will adhere to the environmental regulations and can ensure the success of the mitigation program. Therefore, this criterion is met.

DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met, or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit. Note that the site is within the Design overlay zone and Community Design Standards may apply at the time of building permit review.

CONCLUSIONS

The applicant proposes a new residence which will cover 2,050 square feet of a 19,200 square foot residential lot. The house is to be positioned as close to SW Northwood Avenue as is technically feasible, given the proposed footing design for the house. The remaining 17,000 square feet of the property, not used for a driveway or City-required stormwater facilities, will be planted with native trees and shrubs, and/or protected as native forest habitat. Situated adjacent to Three Rivers Land Conservancy property, this contiguous native habitat contributes to a high-value, unfragmented, 35-acre area (Keller Woodland) of native forest.

The applicant's proposal to cluster new development next to the existing road and City services, while preserving over three quarters of the site in native forest, exemplifies the purpose of Portland's environmental overlay zones, by using flexibility and innovative design to provide development that is carefully designed to be sensitive to the site's protected resources.

The applicant provided thorough findings that show that the proposal meets the applicable approval criteria with very few conditions. Therefore, this proposal should be approved, subject to the following conditions.

ADMINISTRATIVE DECISION

Approval of an Environmental Review for:

- Construction of a single dwelling residence, driveway, utilities, and stormwater management facilities;

within the Environmental Conservation overlay zone, and in substantial conformance with Exhibits C.2, C.3, C.4, and C.5, as modified, signed, and dated by the City of Portland Bureau of Development Services on **April 1, 2010**. Approval is subject to the following conditions:

- A. All permits:** Copies of the stamped Exhibits C.2, C.3, C.4, and C.5 from LU 10-108392 EN and Conditions of Approval listed below, shall be included within all plan sets submitted for permits (building, grading, Site Development, erosion control, etc.). These exhibits shall be included on a sheet that is the same size as the plans submitted for the permit and shall include the following statement, ***"Any field changes shall be in substantial conformance with approved Exhibits C.2 through C.5."***
- B.** Temporary construction fencing shall be installed according to Section 33.248.068 (Tree

Protection Requirements), except as noted below. Construction fencing shall be placed along the Limits of Construction Disturbance for the approved development, as depicted on Exhibit C.4 Construction Management Plan, or as required by inspection staff during the plan review and/or inspection stages.

1. To ensure that the permanent disturbance zone is clearly identified, a 6-foot tall chain link fence mounted on 8-foot tall metal posts shall be placed at the edge of disturbance line shown on Exhibit C.4. All of the fencing will have signage clearly stating the purpose of the fencing as a tree protection fence.
 2. The root protection zone of Tree #12 in the disturbance zone will receive a geotextile fabric covered with 12 inches of wood chips to extend 12 feet radially from the tree, as described in the Arborist Report. All other trees shall be protected as specified in the attached Excerpt of Exhibit A.2.
 3. Erosion control devices shall be installed prior to any construction activity, on all sides of the construction area, inside the protective construction fence, as required by the Bureau of Development Services at the time of building permit review.
 4. No mechanized construction vehicles are permitted outside of the approved "Limits of Construction Disturbance" delineated by the temporary construction fence. All planting work, invasive vegetation removal, and other work to be done outside the Limits of Construction Disturbance, shall be conducted using hand held equipment.
- C.** A total of 43 trees, 72 shrubs, and native ground covers planted over bare soil, shall be planted, in substantial conformance with Exhibits C.5 Mitigation Plan. All plants shall be selected from the Portland Plant List. Substitutions must be approved by BDS Land Use Services staff.
1. Plantings shall be installed between October 1 and March 31 (the planting season).
 2. Prior to installing required mitigation plantings, non-native invasive plants shall be removed from all areas within 15 feet of mitigation plantings, using handheld equipment. Additionally English ivy shall be removed from the trunks of all native trees on the site.
 3. All mitigation and remediation shrubs and trees shall be marked in the field by a tag attached to the top of the plant for easy identification by the City Inspector. All tape shall be a contrasting color that is easily seen and identified.
 4. After installing the required mitigation plantings, the applicant shall request inspection of Permanent Erosion Control Measures (IVR 210) by the Bureau of Development Services, who will confirm that all required mitigation plantings have been installed. A letter of certification from the landscape professional or designer of record may be requested by the Bureau of Development Services to document that the plantings have been installed according to the approved plans.
- D. An inspection of Permanent Erosion Control Measures shall be required** to document installation of the required mitigation plantings.
1. The **Permanent Erosion Control Measures** inspection (IVR 210) shall not be approved until the required mitigation plantings have been installed (as described in Condition C above);
- OR--
2. If the **Permanent Erosion Control Measures** inspection (IVR 210) occurs outside the planting season (as described in Condition C above), then the Permanent Erosion Control Measures inspection may be approved prior to installation of the required mitigation plantings – if the applicant obtains a separate **Zoning Permit** for the purpose of ensuring an inspection of the required mitigation plantings by March 31 of the following year.
- E. The land owner the landscape professional or designer of record shall monitor the required plantings** for two years to ensure survival and replacement as described below.

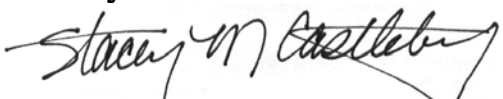
The land owner is responsible for ongoing survival of required plantings beyond the designated two-year monitoring period. The landowner or landscape professional shall:

1. Provide a minimum of two letters (to serve as monitoring and maintenance reports) to the Hillsdale Neighborhood Association and to the Land Use Services Division of the Bureau of Development Services (Attention: Environmental Review LU 10-108392 EN) containing the monitoring information described below. Submit the first letter within 12 months following approval of the Permanent Erosion Control Inspection of the required mitigation plantings. Submit subsequent letters every 12 months following the date of the first monitoring letter. All letters shall contain the following information:
 - a. A count of the number of planted trees that have died. One replacement tree must be planted for each dead tree (replacement must occur within one planting season).
 - b. The percent coverage of native shrubs and ground covers. If less than 80 percent of the mitigation planting area is covered with native shrubs or groundcovers at the time of the annual count, additional shrubs and groundcovers shall be planted to reach 80 percent cover (replacement must occur within one planting season).
 - c. A list of replacement plants that were installed.
 - d. Photographs of the mitigation area and a site plan, in conformance with approved Exhibit C.5 Proposed Mitigation Plan, showing the location and direction of photos.
 - e. A description of the method used and the frequency for watering mitigation trees, shrubs, and groundcovers for the first two summers after planting. All irrigation systems shall be temporary and above-ground.
 - f. An estimate of percent cover of invasive species (English ivy, Himalayan blackberry, reed canarygrass, teasel, clematis) within 15 feet of all plantings. Invasive species must not exceed 20 percent cover during the monitoring period.
- F.** Failure to comply with any of these conditions may result in the City's reconsideration of this land use approval pursuant to Portland Zoning Code Section 33.700.040 and /or enforcement of these conditions in any manner authorized by law.

Note: In addition to the requirements of the Zoning Code, all uses and development must comply with other applicable City, regional, state and federal regulations.

This decision applies to only the City's environmental regulations. Activities which the City regulates through PCC 33.430 may also be regulated by other agencies. In cases of overlapping City, Special District, Regional, State, or Federal regulations, the more stringent regulations will control. City approval does not imply approval by other agencies.

Staff Planner: Stacey Castleberry

Decision rendered by:  **on April 1, 2010**
By authority of the Director of the Bureau of Development Services

Decision mailed: April 6, 2010

About this Decision. This land use decision is **not a permit** for development. Permits may be required prior to any work. Contact the Development Services Center at 503-823-7310 for information about permits.

Procedural Information. The application for this land use review was submitted on February 2, 2010, and was determined to be complete on February 16, 2010.

Zoning Code Section 33.700.080 states that Land Use Review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the

application is complete at the time of submittal, or complete within 180 days. Therefore this application was reviewed against the Zoning Code in effect on February 2, 2010.

ORS 227.178 states the City must issue a final decision on Land Use Review applications within 120-days of the application being deemed complete. The 120-day review period may be waived or extended at the request of the applicant. In this case, the applicant requested that the 120-day review period be extended for 5 days. Unless further extended by the applicant, **the 120 days will expire on: June 21, 2010.**

Some of the information contained in this report was provided by the applicant.

As required by Section 33.800.060 of the Portland Zoning Code, the burden of proof is on the applicant to show that the approval criteria are met. The Bureau of Development Services has independently reviewed the information submitted by the applicant and has included this information only where the Bureau of Development Services has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the decision of the Bureau of Development Services with input from other City and public agencies.

Conditions of Approval. If approved, this project may be subject to a number of specific conditions, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans, and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term “applicant” includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

Appealing this decision. This decision may be appealed to the Hearings Officer, which will hold a public hearing. Appeals must be filed **by 4:30 PM on April 20, 2010** at 1900 SW Fourth Ave. Appeals can be filed Tuesday through Friday on the first floor of the Development Services Center until 3 p.m. After 3 p.m. and Mondays, appeals must be submitted to the receptionist at the front desk on the fifth floor. **An appeal fee of \$250 will be charged.** The appeal fee will be refunded if the appellant prevails. There is no fee for ONI recognized organizations appealing a land use decision for property within the organization’s boundaries. The vote to appeal must be in accordance with the organization’s bylaws. Low-income individuals appealing a decision for their personal residence that they own in whole or in part may qualify for an appeal fee waiver. In addition, an appeal fee may be waived for a low income individual if the individual resides within the required notification area for the review, and the individual has resided at that address for at least 60 days. Assistance in filing the appeal and information on fee waivers is available from BDS in the Development Services Center. Fee waivers for low-income individuals must be approved prior to filing the appeal; please allow 3 working days for fee waiver approval. Please see the appeal form for additional information.

The file and all evidence on this case are available for your review by appointment only. Please call the Request Line at our office, 1900 SW Fourth Avenue, Suite 5000, phone 503-823-7617, to schedule an appointment. I can provide some information over the phone. Copies of all information in the file can be obtained for a fee equal to the cost of services. Additional information about the City of Portland, city bureaus, and a digital copy of the Portland Zoning Code is available on the internet at www.portlandonline.com.

Attending the hearing. If this decision is appealed, a hearing will be scheduled, and you will be notified of the date and time of the hearing. The decision of the Hearings Officer is final; any further appeal must be made to the Oregon Land Use Board of Appeals (LUBA) within 21 days of the date of mailing the decision, pursuant to ORS 197.620 and 197.830. Contact LUBA at

550 Capitol St. NE, Suite 235, Salem, Oregon 97301, or phone 1-503-373-1265 for further information.

Failure to raise an issue by the close of the record at or following the final hearing on this case, in person or by letter, may preclude an appeal to the Land Use Board of Appeals (LUBA) on that issue. Also, if you do not raise an issue with enough specificity to give the Hearings Officer an opportunity to respond to it, that also may preclude an appeal to LUBA on that issue.

Recording the final decision.

If this Land Use Review is approved the final decision must be recorded with the Multnomah County Recorder. A few days prior to the last day to appeal, the City will mail instructions to the applicant for recording the documents associated with their final land use decision.

- *Unless appealed*, The final decision may be recorded on or after **April 21, 2010 – (the day following the last day to appeal)**.
- A building or zoning permit will be issued only after the final decision is recorded.

The applicant, builder, or a representative may record the final decision as follows:

- **By Mail:** Send the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to: Multnomah County Recorder, P.O. Box 5007, Portland OR 97208. The recording fee is identified on the recording sheet. Please include a self-addressed, stamped envelope.
- **In Person:** Bring the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to the County Recorder's office located at 501 SE Hawthorne Boulevard, #158, Portland OR 97214. The recording fee is identified on the recording sheet.

For further information on recording, please call the County Recorder at 503-988-3034
For further information on your recording documents please call the Bureau of Development Services Land Use Services Division at 503-823-0625.

Expiration of this approval. An approval expires three years from the date the final decision is rendered unless a building permit has been issued, or the approved activity has begun.

Where a site has received approval for multiple developments, and a building permit is not issued for all of the approved development within three years of the date of the final decision, a new land use review will be required before a permit will be issued for the remaining development, subject to the Zoning Code in effect at that time.

Applying for your permits. A building permit, occupancy permit, or development permit may be required before carrying out an approved project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and
- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

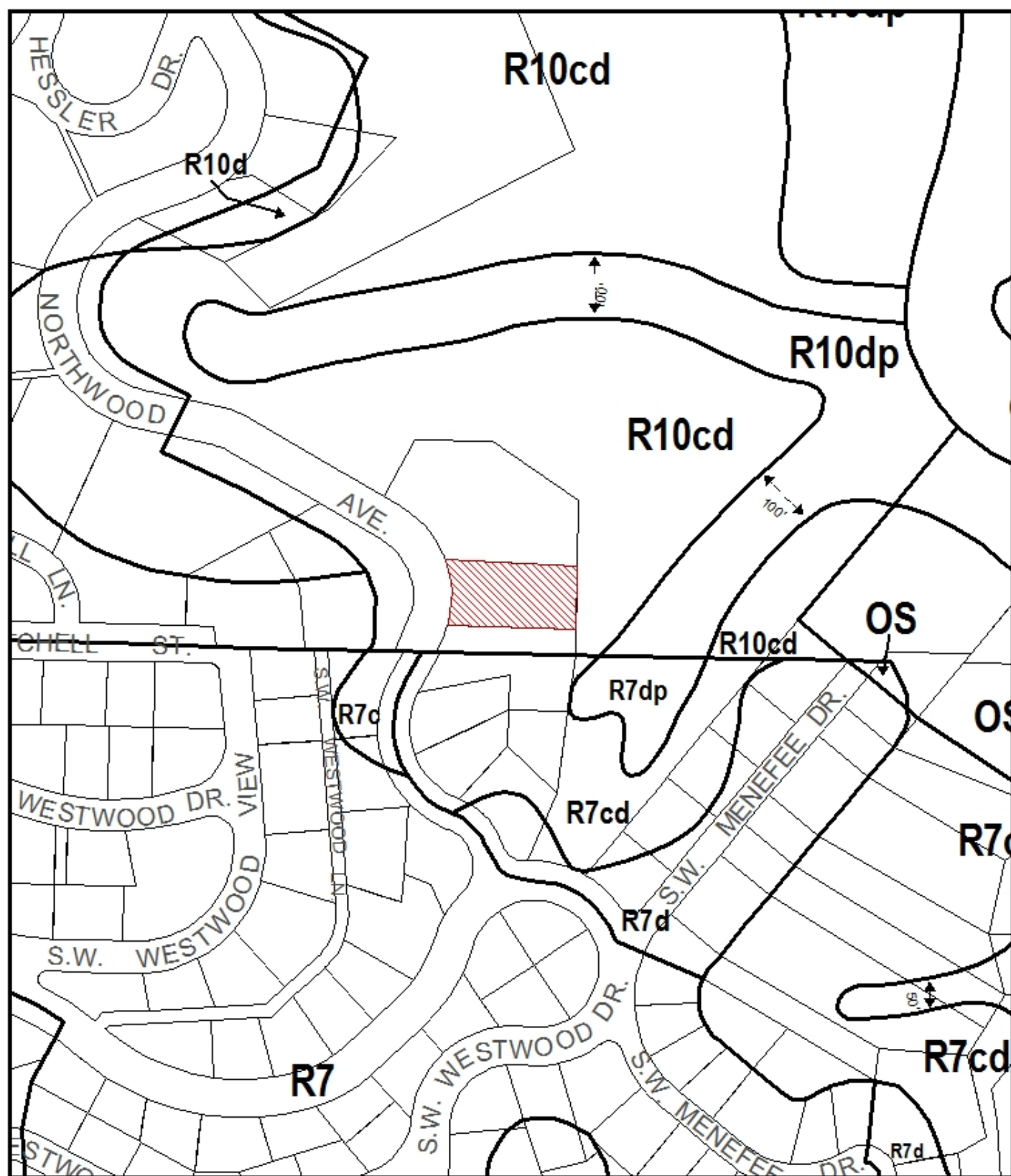
EXHIBITS

NOT ATTACHED UNLESS INDICATED

- A. Applicant's Statements
 2. Exerpt A-2 (attached)

- B. Zoning Map (attached)
- C. Plans/Drawings:
 - 1. Existing Conditions Site Plan
 - 2. Proposed Development Plan (attached)
 - 3. Cross Section Elevation (attached)
 - 4. Construction Management Plan (attached)
 - 5. Mitigation Plan (attached)
- D. Notification information:
 - 1. Mailing list
 - 2. Mailed notice
- E. Agency Responses:
 - 1. Bureau of Environmental Services
 - 2. Bureau of Transportation Engineering and Development Review
 - 3. Water Bureau
 - 4. Fire Bureau
 - 5. Site Development Review Section of BDS
 - 6. Bureau of Parks, Forestry Division
 - 7. Portland Bureau of Transportation
- F. Correspondence:
 - No letters received
- G. Other:
 - 1. Original LU Application
 - 2. Site History Research
 - 3. Incomplete letter to applicant

The Bureau of Development Services is committed to providing equal access to information and hearings. Please notify us no less than five business days prior to the event if you need special accommodations. Call 503-823-7300 (TTY 503-823-6868).



ZONING



Site



File No.	LU 10-108392 EN
1/4 Section	3528
Scale	1 inch = 200 feet
State_Id	1S1E16AC 1200
Exhibit	B (Feb 03,2010)

Appendix # 1

Tree Protection Steps

It is critical that the following steps be taken to ensure that the trees that are to be retained are protected.

Before Construction Begins

1. Notify all contractors of the trees protection procedures. For successful tree protection on a construction site, all contractors must know and understand the goals of tree protection. It can only take one mistake with a misplaced trench or other action to destroy the future of a tree.
 - a. Hold a Tree Protection meeting with all contractors to fully explain goals of tree protection.
 - b. Have all sub contractors sign memoranda's of understanding regarding the goals of tree protection. Memoranda to include penalty for violating tree protection plan. Penalty to equal appraised value of tree(s) within the violated tree protection zone per the current Trunk Formula Method as outline by the Council of Tree & Landscape Appraisers current edition of the *Guide for Plant Appraisal*.
Penalty is to be paid to owner of the property.

2. Fencing

- a. Establish fencing around each tree or grove of trees to be retained.
- b. The fencing is to be put in place before the ground is cleared in order to protect the trees and the soil around the trees from any disturbance at all.
- c. Fencing is to be placed at the edge of the root protection zone. Root protection zones are to be established by the project arborist based on the needs of the site and the tree to be protected.
- d. Fencing is to consist of at least 5-foot high steel fencing secured to the ground with at least 7-foot metal posts to prevent it from being moved by contractors, sagging or falling down.
- e. Fencing is to remain in the position that is established by the project arborist and not to be moved without written permission from the project arborist until the end of the project. .

3. Signage

- a. All tree protection fencing should have signage as follows so that all contractors understand the purpose of the fencing:

TREE PROTECTION ZONE

DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION FENCING.

Please contact the project arborist or owner if alterations to the approved location of the tree protection fencing are necessary.

TERAGAN & ASSOCIATES, INC

503-803-0017

3145 Westview Circle • Lake Oswego, OR 97034

(503) 697-1975 • Fax (503) 697-1976 • E-mail: terry@teragan.com

ISA Board Certified Master Arborist, #PN-0120 BMT

Member, American Society of Consulting Arborists

LU 10-108392 EN

Excerpt Exhibit A.2

Planner * Approval for Environmental Review only. Not a building permit. Additional zoning requirements may apply.	City of Portland - Bureau of Development Services LU # 10-108392 EN Date April 1, 2010	* Approved *
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- b. Signage should be placed as to be visible from all sides of a tree protection area and spaced every 75 feet.

During Construction

1. Protection Guidelines Within the Root Protection Zone
 - a. No traffic shall be allowed within the root protection zone. No vehicle, heavy equipment, or even repeated foot traffic.
 - b. No storage of materials including but not limited to soil, construction material, or waste from the site.
 - i. Waste includes but is not limited to concrete wash out, gasoline, diesel, paint, cleaner, thinners, etc.
 - c. Construction trailers are not to be parked/placed within the root protection zone without written clearance from project arborist.
 - d. No vehicles shall be allowed to park within the root protection areas.
 - e. No activity shall be allowed that will cause soil compaction within the root protection zone.

The trees shall be protected from any cutting, skinning or breaking of branches, trunks or roots.

Any roots that are to be cut from existing trees that are to be retained, the project consulting arborist shall be notified to evaluate and oversee the proper cutting of roots with sharp cutting tools. Cut roots are to be immediately covered with soil or mulch to prevent them from drying out.

No grade change should be allowed within the root protection zone.

Any necessary deviation of the root protection zone shall be cleared by the project consulting arborist and project owner.

Provide water to trees during the summer months. Tree(s) that will have had root system(s) cut back will need supplemental water to overcome the loss of ability to absorb necessary moisture during the summer months.

7. Any necessary passage of utilities through the root protection zone shall be by means of tunneling under roots by hand digging or boring under the supervision of the project arborist.

After Construction

1. Carefully landscape in the area of the tree. Do not allow trenching within the root protection zone. Carefully plant new plants within the root protection zone. Avoid cutting the roots of the existing trees. Any root larger than two inches shall not be cut, the new plant shall be re-positioned.
2. Do not plan for irrigation within the root protection zone of existing trees unless it is drip irrigation for a specific planting or cleared by the project arborist.
3. Provide for adequate drainage of the location around the retained trees.
4. Pruning of the trees should be completed as one of the last steps of the landscaping process before the final placement of trees, shrubs, ground covers, mulch or turf.
5. Provide for inspection and treatment of insect and disease populations that are capable of damaging the retained trees and plants.
6. Trees that are retained may need to be fertilized and inoculated with mycorrhizae treatments as called for by project arborist after final inspection.

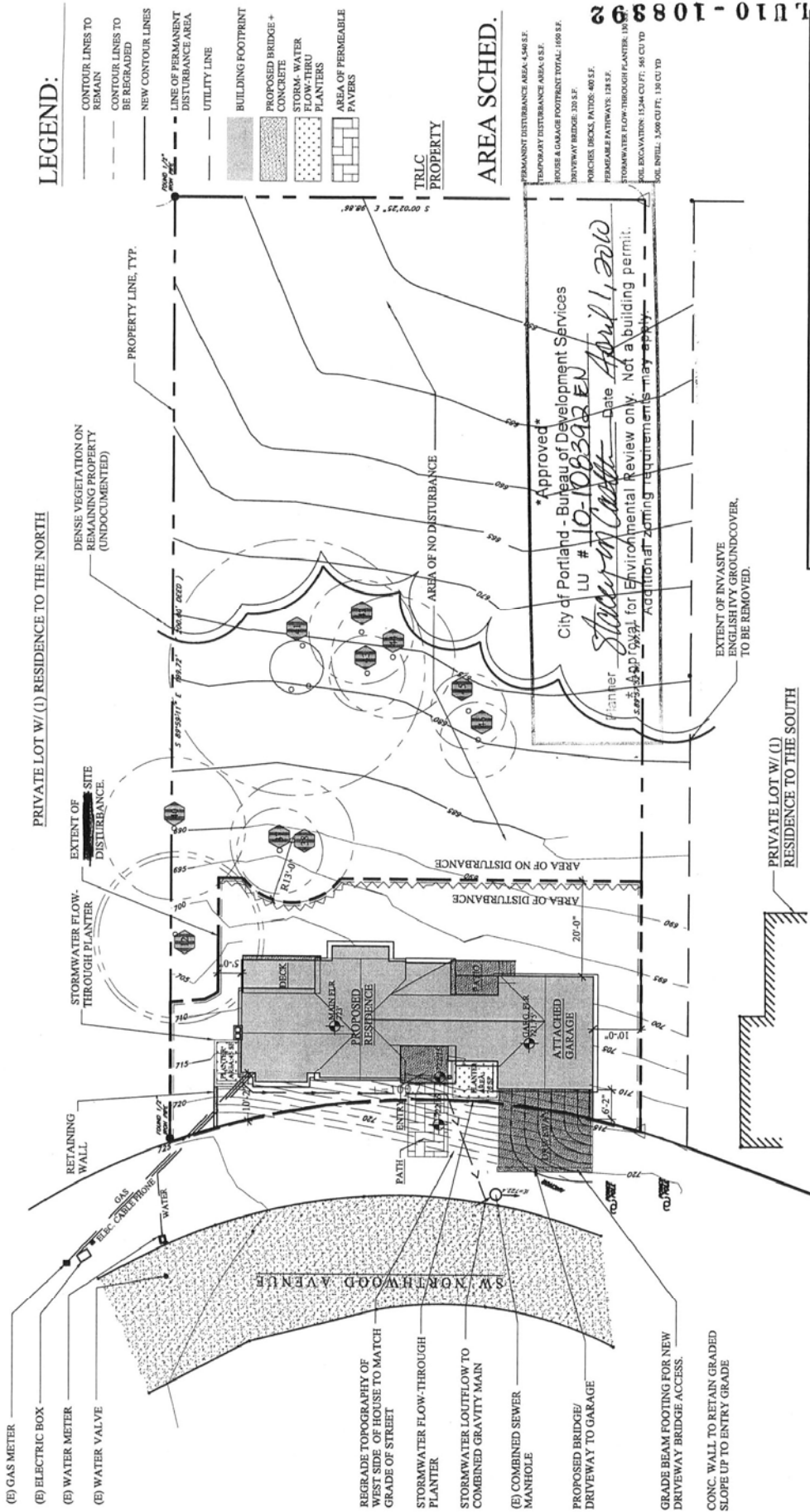
Approved

City of Portland - Bureau of Development Services

LU # 10-108392-EN

Planner Stacey Carter Date April 1, 2010

* Approval for Environmental Review only. Not a building permit. Additional zoning requirements may apply.



PROPOSED DEVELOPMENT PLAN

1

SCALE: 1" = 30'-0"

SHEET NOTES:

- CONTRACTOR TO PERFORM ALL CONSTRUCTION ACTIVITIES WITHIN BOUNDARIES OF PERMANENT DISTURBANCE AREAS.
- EXISTING TREES & ROOT SYSTEMS TO BE REMOVED PER ARBORIST'S RECOMMENDATIONS.
- SEE MITIGATION PLAN FOR ALL REQUIRED MITIGATION FOR TREE REMOVAL.
- SEE GEOTECH REPORT FOR ALL REQUIRED MITIGATION REGARDING EXCAVATION & SUBGRADE/FOUNDATION REQUIREMENTS.
- ENTIRE SITE IS WITHIN THE ENVIRONMENTAL CONSERVATION ZONING OVERLAY. ALLOWED PERMANENT DISTURBANCE IS 5,000 S.F.
- MITIGATION PER TREE REMOVAL TO BE PER 33.450.140 K.

ENVIRONMENTAL REVIEW

#09-159347 EA

NOT FOR CONSTRUCTION

emerick architects p.c.

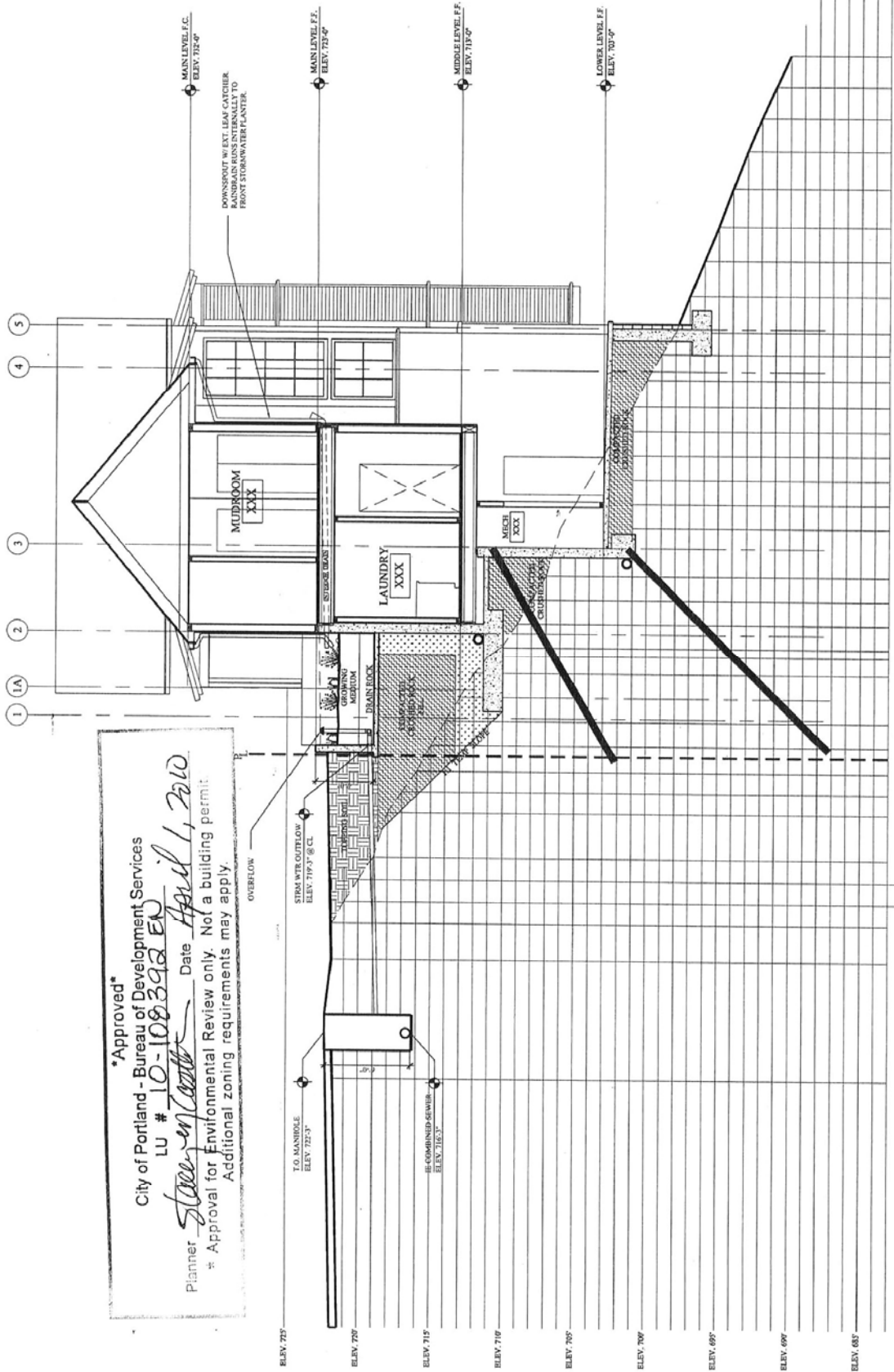
KERFOOT RESIDENCE
 TAX LOT 1200, NORTHWOOD AVE
 PORTLAND, OR 97239
 JOB #: 0811

A1.2

DATE: 02-01-10

CASE NO. C.2
 EXHIBIT C.2
 LU10-108392

Approved
 City of Portland - Bureau of Development Services
 LU # 10-108392 EN
 Planner: *Stacy Carter* Date: *April 1, 2010*
 * Approval for Environmental Review only. Not a building permit.
 Additional zoning requirements may apply.



CROSS SECTION @ FLOW-THROUGH PLANTER

SCALE: 1/8"=1'

EXHIBIT
 CASE NO. C.3
 LU10-108392

SECTION ELEVATIONS FOR PLANTER
 BES REQUEST
 NOT FOR CONSTRUCTION

emerick architects p.c.

PROJECT: KERFOOT
 JOB #: 0811

SK-1

DATE: 03-15-10

- (E) GAS METER
- (E) ELECTRIC BOX
- (E) WATER METER
- (E) WATER VALVE

*See Exhibit A.2 for Required tree protection.

PROTECTED TREE FOLLOW-ARBORESTS PRESCRIBED METHODS BUILDING FOOTPRINT

STORMWATER FLOW-THROUGH PLANTER

SOFT BODIES

PROPOSED DRIVEWAY TO GARAGE

REGRADED SLOPE UP TO ENTRY ELEVATION

PROPOSED BRIDGE/ DRIVEWAY TO GARAGE

EXCAVATE

SEWER MANHOLE

EQUIPMENT STORAGE

CONTOUR LINES TO REMAIN

CONTOUR LINES TO BE REGRADED

NEW CONTOUR LINES

LINE OF TEMPORARY DISTURBANCE

AREA OF CONCRETE

AREA OF SOIL EXCAVATION

AREA OF SOIL INFILL

Approved* City of Portland - Bureau of Development Services
 LU # 10-108392 EP
 Date April 1, 2010
 Approval for Environmental Review only. Not a building permit.
 Additional zoning requirements may apply.

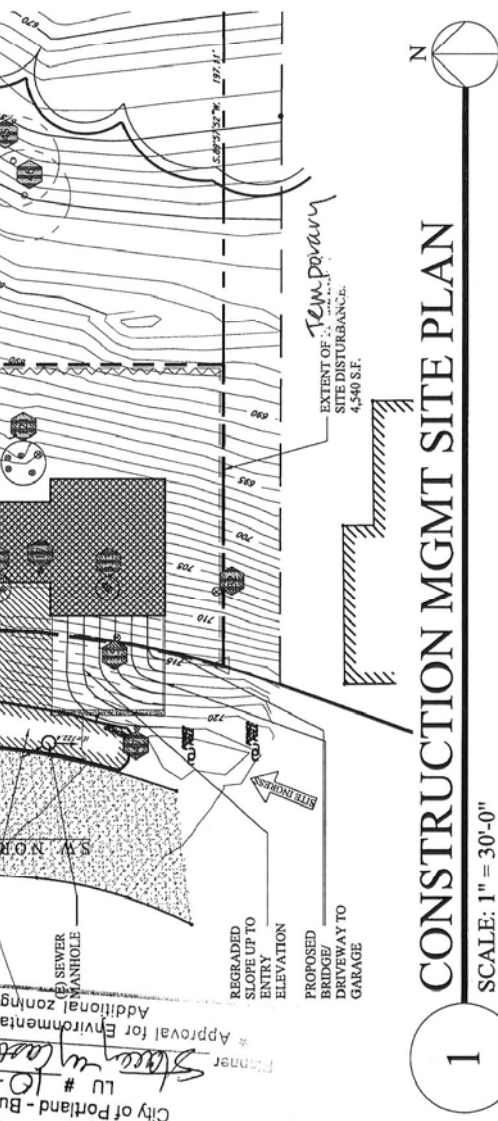
- A 6-foot tall chain link fence mounted on 8-foot tall metal posts shall be placed at the edge of disturbance line shown on Exhibit C.4. All of the fencing will have signage clearly stating the purpose of the fencing as a tree protection fence.
- The root protection zone of Tree #12 in the disturbance zone will receive a geotextile fabric covered with 12 inches of wood chips to extend 12 feet radially from the tree, as described in the Arborist Report.
- Erosion control devices shall be installed prior to any construction activity, on all sides of the construction area, inside the protective construction fence, as required by the Bureau of Development Services at the time of building permit review.
- No mechanized construction vehicles are permitted outside of the approved "Limits of Construction Disturbance" delineated by the temporary construction fence. All planting work, invasive vegetation removal, and other work to be done outside the Limits of Construction Disturbance, shall be conducted using hand held equipment.

LEGEND:

- CONTOUR LINES TO REMAIN
- CONTOUR LINES TO BE REGRADED
- NEW CONTOUR LINES
- LINE OF TEMPORARY DISTURBANCE
- AREA OF CONCRETE
- AREA OF SOIL EXCAVATION
- AREA OF SOIL INFILL

TREE PROTECTION SCHEDULE		
COMMON NAME	SCIENTIFIC NAME	SIZED/DH (IN)
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	12 13" x 13" = 18"
DOUGLAS FIR	<i>Pseudotsuga menziesii</i>	37 9"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	38 13"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	40 15"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	41 27"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	42 11"
DOUGLAS FIR	<i>Pseudotsuga menziesii</i>	43 8"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	44 13"
DOUGLAS FIR	<i>Pseudotsuga menziesii</i>	45 8"
DOUGLAS FIR	<i>Pseudotsuga menziesii</i>	46 8"
TOTAL	10 TREES	130"

TREE REMOVAL SCHEDULE		
COMMON NAME	SCIENTIFIC NAME	SIZED/DH (IN)
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	345 18" x 15" x 8" = 11" = 27"
RED ALDER	<i>Alnus rubra</i>	6 15"
DOUGLAS FIR	<i>Pseudotsuga menziesii</i>	7 7"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	891 15" x 9" x 13" = 23"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	11 9"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	121 11" x 17" x 18" x 11" x 12" = 32"
RED ALDER	<i>Alnus rubra</i>	17 13"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	181 10" x 10" x 12" = 19"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	212 11" x 11" = 16"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	282 14" x 13" x 7" x 14" = 28"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	292 11" x 9" x 10" x 10" = 17"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	32 19"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	333 18" x 8" = 20"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	35 16"
DOUGLAS FIR	<i>Pseudotsuga menziesii</i>	36 7"
BIG LEAF MAPLE	<i>Acer macrophyllum</i>	39 (9")
DEODAR CEDAR	<i>Cedrus deodora</i>	47 (10")
WILLOW	<i>Salix sp.</i>	48 (15")
TOTAL	15 TREES, 1 HAZARD, 2 R.O.W.	267"



SHEET NOTES:

- CONTRACTOR TO PERFORM ALL CONSTRUCTION ACTIVITIES WITHIN BOUNDARIES OF PERMANENT DISTURBANCE AREAS.
- CONTRACTOR TO PROTECT ALL TREES NOT BEING REMOVED PER ARBORIST'S RECOMMENDATIONS.
- A METAL TREE PROTECTION FENCE 5' TALL SUPPORTED EVERY 10' W/ 7' LONG METAL POSTS DRIVEN AT LEAST 2" INTO THE GROUND. TO BE INSTALLED ON 3 SIDES OF THE DISTURBANCE AREA.
- INSTALL A GEOTEXTILE FABRIC COVERED W/ 12 INCHES OF WOOD CHIPS TO BE REMOVED AS SCHEDULED.
- TREES & ROOT SYSTEMS TO BE REMOVED AS SCHEDULED.
- SEE LANDSCAPE PLANS FOR ALL REQUIRED MITIGATION FOR TREE REMOVAL & TEMPORARY SITE DISTURBANCE AREA RESTORATION.
- SEE GEOTECH REPORT FOR RECOMMENDATIONS REGARDING EXCAVATION & SUBGRADE/ FOUNDATION REQUIREMENTS.
- SEE GEOTECH REPORT FOR RECOMMENDATIONS REGARDING EROSION CONTROL ZONING OVERLAY. ALLOWED PERMANENT DISTURBANCE IS 5,000 S.F.
- MITIGATION PER TREE REMOVAL TO BE PER 3.0:1.0:1.0.

ENVIRONMENTAL REVIEW

#09-159347 EA

NOT FOR CONSTRUCTION

emerick architects p.c.

KERFOOT RESIDENCE
 TAX LOT 1200, NORTHWOOD AVE
 PORTLAND, OR 97239
 JOB #: 0811

A1.3

DATE: 02-01-10

