



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

1900 SW 4th Avenue, Suite 5000
Portland, Oregon 97201
503-823-7300
Fax 503-823-5630
TTY 503-823-6868
www.portlandonline.com/bds

Date: November 19, 2010
To: Interested Person
From: Stacey Castleberry, Land Use Services
503-823-7586 / Stacey.Castleberry@portlandoregon.gov

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. If you have questions about the proposal, please contact the Applicant.

CASE FILE NUMBER: LU 10-103405 EN AD

GENERAL INFORMATION

Applicant/Owners:	Bureau of Environmental Services Attention: Chad Smith 1120 SW 5th Avenue Ste 1000 Portland, OR 97204 (503) 823-5838	Brian Williams 2126 SE Umatilla Street Portland, OR 97202-7415
	International Ventures, Inc. 13354 Rogers Road Lake Oswego, OR 97035-6753	
Site Address:	8220 SE 21 st Avenue, 8308 SE 21 st Avenue, 2126 SE Umatilla Street , and adjacent right of way in SE Umatilla, SE Tenino, and SE 21 st Avenue.	
Legal Description:	BLOCK 108 LOT 10-12, SELLWOOD; SELLWOOD, BLOCK 107, LOT 12-16 TL 4700; SELLWOOD, BLOCK 107, LOT 12-14 TL 4800	
Tax Account No.:	R752720450, R268017, R268016	
State ID No.:	1S1E23DD 03900; 1S1E23DD 4800; 1S1E23DD 4700	
Quarter Section:	3832	
Neighborhood:	Sellwood-Moreland, contact Mat Millenbach at 503-239-1134.	
Business District:	None	
District Coalition:	Southeast Uplift, contact Leah Hyman at 503-232-0010.	
Plan District:	Johnson Creek Basin - Flood Risk	
Other Designations:	100-year floodplain, FEMA floodway, potential flood hazard.	
Zoning:	R2 a,c,d—Residential 2,000 base zone with Alternative Design Density, Environmental Conservation, and Design overlay zones.	
Case Type:	EN AD—Environmental Review with Adjustment Review	
Procedure:	Type II, an administrative decision with appeal to the Hearings Officer.	

PROPOSAL: The applicant proposes a stream and riparian enhancement project located on Crystal Springs Creek in southeast Portland between SE Tenino and Umatilla at SE 21st Ave. The Tenino – Umatilla Culvert Replacement project will replace three culverts on Crystal Springs Creek. All three culverts are velocity barriers that currently prevent upstream passage of juvenile salmon. The Tenino and Umatilla St. culvert replacements are located within the right-of-way. The third culvert is located beneath the carport on the 8220 SE 21st Avenue property.

- The existing Tenino culvert is a 41-foot long by 42-inch diameter corrugated metal pipe located in the public right of way.

- The Umatilla culvert is a 62-foot long by 48-inch diameter pipe located in the public right of way.
- The carport culvert is a 42-foot long by 48-inch diameter corrugated metal pipe located under the private carport at 8220 SE 21st Avenue.

The culverts are undersized and increase stream velocities above and below the culverts. Much of the streambank in the project area is lined with stacked concrete, cinderblocks or grouted stacked rocks.

Tenino Culvert--The existing culvert beneath the intersection of SE Tenino St. and SE 21st Ave. will be replaced with a bridge that has a minimum opening width of 14 feet. The tapered wing walls in the approach channel will be replaced to provide a smooth transition from the upstream channel through the culvert. A 'natural' streambed will be installed within the replacement structure. Preliminary hydraulic analysis indicates the proposed project will lower the base flood elevation approximately 2.9 feet upstream of SE Tenino Street.

Umatilla Culvert--The existing 4-foot diameter culvert at SE Umatilla St. will be replaced with an open-bottomed arch culvert that has a minimum opening width of 14 feet. The approach channel will be shaped to provide a smooth transition into the culvert. Rounded gravel substrate with a number of larger fish rocks will be installed within the replacement structure to provide a natural streambed. Installation of headwalls and wingwalls at the inlet and outlet of the replacement structure will limit potential scour and protect the footings. Preliminary hydraulic analysis indicates the proposed project will lower the base flood elevation approximately 0.3 feet upstream of SE Umatilla Street.

Note that those portions of the two culverts that are within the public right of way are exempt from environmental review according to Zoning Code Section 33.430.080 D.2., and only the work outside of the right of way is technically subject to environmental review.

Carport Culvert--In 2009 the City of Portland purchased the property located at 8220 SE 21st Avenue. A triplex and a private culvert are located on this property beneath an existing driveway and carport. This project permanently removes the triplex, private carport, driveway, and culvert from the property. The stream will be day-lighted and floodplain regraded. Non-native and invasive vegetation will be removed from the site. The riparian corridor will be planted with native plant species. Preliminary hydraulic analysis indicates the proposed project will lower the base flood approximately 1.6 feet upstream of the existing carport culvert location.

The overall project will remove a total of 4837 cubic yards of material within and around Crystal Springs Creek. The project will result in 3942 cubic yards of fill. Flood storage capabilities will be improved with the removal of excavated materials.

Public Trail--A short public trail will be constructed on the property at 8220 SE 21st Avenue. The trail will be 4 feet wide, made of 1/4-inch minus crushed/compacted rock and meet Americans with Disabilities Act requirements. An informational sign (not to exceed 50 sq. ft.) will be placed near the trail. A split rail fence will be placed between the trail and stream and around the boundary of the property. The trail and fence, both predominantly outside of the resource area of the environmental zone, will be constructed so as to meet the objective development standards of 33.430.190 and 33.430.140, and are not required to be approved through Environmental Review.

The majority of 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 activities for the removal of the culverts will occur in the resource area of the environmental zone and excavation will occur within Crystal Springs Creek. The Resource Enhancement standards in Zoning Code Section

33.430.170 can not met by the culvert removal project; therefore the work that occurs outside the public right of way must be approved through an Environmental Review.

Additionally, the project will result in the removal of six trees that are not within 10 feet of a proposed building or within 5 feet of a paved surface. The Johnson Creek Basin Plan District standards limits the removal of trees within the 100-year floodplain, and to be approved an Adjustment to the standards listed in 33.53.150 D is needed.

RELEVANT APPROVAL CRITERIA: In order to be approved, the proposed culvert removal project must comply with the approval criteria of Title 33. The relevant criteria are:

- **33.430.250. B Resource Enhancement Projects**
- **33.805.040 Adjustments**

FACTS

Description of the Site: The entire project site is located within a residential portion of Southeast Portland. Over the past 50 plus years, Crystal Springs Creek has been altered to accommodate the adjacent development. Man-made features within the project reach include three culverts, a backyard pond created by an in-stream weir, and man-made island with a miniature lighthouse. The channel is constrained by high terraces within a broad valley. Most of the area is channelized with little erosion due to the reinforcement of the banks. The surrounding topography is fairly flat and channel slope in the area is an average of 0.5%.

The three culverts occur within the reach of Crystal Springs Creek between SE Umatilla and SE Tenino streets. The culverts are undersized and increase stream velocities slightly above and below the culverts. Above the Tenino Street culvert the channel is lined with stacked concrete, while the downstream side has concrete reinforcements at SE 21st Avenue and a fallen, uprooted tree creates its bank. A 20-foot wide pond is present between the Tenino culvert and the Umatilla Street culvert. In-stream habitat complexity is very low.

Zoning: The site is situated within the Residential 2,000 (R2) base zone, and the Alternative Design Density (a), Environmental Conservation (c), and Design (d) overlay zones. It is also in the Johnson Creek Basin Plan District area.

The R2 zone allows multi-dwelling residential development up to a maximum density of one unit per 2,000 square feet of site area, and requires a minimum density of one unit per 2,500 square feet of site area. The provisions of this zone allow this use; these provisions are not specifically addressed through this Environmental Review.

The “a” overlay is intended to allow increased density that meets design compatibility requirements. It fosters owner-occupancy, focuses development on vacant sites, preserves existing housing stock, and encourages new development that is compatible with the surrounding residential neighborhood. These regulations do not apply to the proposed culvert replacement project.

The “d” overlay zone promotes the conservation and enhancement of areas of the City with special historic, architectural or cultural value. New development and exterior modifications to existing development must meet the Community Design Standards (Chapter 33.218) or are subject to design review. These regulations do not apply to the proposed culvert replacement project.

The “c” 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 preserve the site’s protected resources. They protect the most important environmental features and resources while allowing environmentally sensitive urban development where resources are less significant. The purpose of this Environmental Review is to ensure compliance with the regulations of the environmental zones.

The Johnson Creek Basin plan district provides for the safe, orderly, and efficient development of lands which are subject to a number of physical constraints, including significant natural resources, steep and hazardous slopes, flood plains, wetlands, and the lack of streets, sewers, and water services. These regulations apply to tree protection and are addressed in this report through the Adjustment review.

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 *Johnson Creek Basin Protection Plan* as Site # 3. Resources and functional values of concern on the project site include water, storm drainage, scenic, fish and wildlife habitat, aesthetics, heritage, flood storage, recreation, and education.

Impact Analysis and Enhancement Plan: A full description of the proposal was provided on page one of this report. The following additionally describes the proposed construction management plan, resource enhancement and monitoring proposal.

Construction Management Plan (CMP): The applicant's detailed Construction Management plan is provided in the application case file Exhibit A.1. Construction is anticipated to begin during the following summer. Timing of construction activities will meet the required In-Water Work Periods as required by Oregon Department of Fish and Wildlife (ODFW) of July 15 – August 31.

Tree Protection Measures: Temporary fencing, barricades, and guards will be provided as required to protect trees and other plants, which are to remain, from all damage. Protective barrier fence will be installed prior to the start of any activity which may potentially intrude into root protection zones of trees designated to be retained, and will be removed only after all work potentially injurious to trees and other plants is complete. Tree protection fencing will be 6-foot high chain link and be secure to the ground with 8-foot metal posts.

All construction traffic will be excluded from areas outside the limits of disturbance in order to retain undisturbed natural vegetation areas. There will be no disturbance of native vegetation outside of the limits of disturbance as shown in the approved tree removal/protection plan and report provided by the City Forester (Exhibit A.1, attachment #10). Care will be taken to avoid damage to the canopy of any trees overhanging the limits of disturbance.

Erosion Prevention and Sediment Control: Erosion prevention and sediment control within the construction zone of the proposed project will follow best management practices and conform to the construction management plan and to clearing, grading and erosion control code contained within the City of Portland Erosion Control Manual and Title 10. Work will be conducted during summer months, when risk of rain and runoff are greatly reduced. City staff will be present on the job site at all times, and will have coir fabrics and other geotextiles and erosion control measures on site. City staff will monitor erosion control devices twice daily. Equipment, materials, and personnel will be excluded from wetlands and waterways using silt fences and exclusion zone fences where work will not be conducted, as shown on the plans.

Construction equipment will enter the site on the existing concrete pad/driveway that is located directly over the carport culvert. This will allow access to the east side of the property at 8220 SE 21st (triplex property). The existing concrete pad/driveway will be removed as the contractor finishes construction and planted with native vegetation. Additional measures such as using 6-inch ballast rocks may be required as needed to insure that paved areas are kept clean for the duration of the project. Construction is anticipated to occur in July through October and completed prior to the start of the rainy season.

Orange protective fencing will be installed to isolate disturbance areas and vegetation while chain link fence will be used around trees prior to any ground disturbing activities. All

construction activities will occur within the fenced area (within the limits of disturbance) to minimize the disturbance of vegetation and soil. Sediment fencing will be installed along the driveway and down grade of the staging and fill areas.

Approximately 4837 cubic yards of fill will be removed from the site and disposed of off-site to an approved upland facility.

Temporary flow diversion will be installed to divert the creek around the construction site. Diversion dams will be placed in the creek upstream and downstream of the project area. Pumps or gravity feed will be used to divert the stream. Block nets will be installed both up and downstream of the project site in order to exclude fish from the area once a rescue operation has been performed. Diverted flow will be filtered prior to entering the creek downstream. Energy dissipating boulders will be used to reduce scour at the end of the stream diversion pipe and sediment or equal will be installed in Crystal Springs immediately downstream of the construction areas to trap sediment.

Groundwater and other seepage into the work area may need to be dewatered during construction. Water will be pumped into an undisturbed vegetated area, above ordinary high water (OHW), onto a sediment where sediment can settle out and water will flow away from Crystal Springs.

Crystal Springs flows are nearly constant and modest through all seasons. Fish rescue will be conducted immediately following work area isolation. The work area will be isolated with a small diversion dam and flexible bypass pipe. Fish passage will be provided immediately following the construction activities. The new channel, in place of the existing culvert, will be graded to positively drain at the gradient of upstream and downstream sections.

Coir filter fabric will be installed around placed large wood and on the newly constructed stream bank to prevent erosion and allow for stabilization.

Adult and Juvenile Fish Passage: Fish passage will not be maintained during this project. Block nets will be installed above and below the work area. A fish salvage effort will be conducted prior to in-water work. A fish salvage permit will be acquired from Oregon Department of Fish and Wildlife.

Construction Impacts: Impacts from construction activities necessary to replace the culverts and daylight the stream are described in detail in Exhibit A.1 in the application case file. Impacts of the project on fisheries resources are expected to be temporary and minimal. Potential impacts on aquatic habitat and organisms may include: acoustic disturbances, physical disturbance of resident fish species during rescue, and risk of fuel spills from construction equipment. Potential impacts on wildlife include temporary loss of habitat and acoustic disturbances during construction.

The long-term benefits of restoring Crystal Springs Creek are expected to far outweigh potential temporary, short-term impacts associated with project construction. The project will restore approximately 300 feet of high quality fish bearing habitat and 0.41 acres of riparian habitat and upland habitat.

Proposed Resource Enhancement: The proposed replanting plan is described below: The Bureau of Environmental Services Watershed Revegetation Program staff will provide and install all plant materials and maintain enhancement plantings for 5 years (see Attachment #5 of Exhibit A.1) as part of this stream restoration project. Installation will include the application of native seed to establish a native herbaceous ground cover and the installation of woody plant materials (bare-root trees, bare-root shrubs and live pole cuttings) on approximately 0.5 acres surrounding and including the construction area. Maintenance will include initial site preparation, follow-up treatment of invasive non-native vegetation, and additional plant

installation as necessary. Monitoring will occur at least once annually in years one through five.

The applicant will provide native seed to the construction contractor for application to all exposed/disturbed soils within the project boundaries including all graded areas, access roads, staging areas, and stockpile areas. Additionally, the applicant will apply native seed to other areas within the project boundary to provide competition to invasive plant species and aid in vegetation management. Species composition of the native seed mix is shown below. All seed material will be collected and/or propagated from local seed sources to help maintain local genetics and improve survival. Seed will be applied during and after construction.

PROPOSED PLANTING –NATIVE HERBACEOUS SEED LIST

Native Grasses	Common Name	Lbs/Acre
<i>Bromus carinatus</i>	California Brome	15
<i>Elymus glaucus</i>	Blue Wild Rye	10
<i>Agrostis exarata</i>	Spike Bent Grass	1
<i>Deschampsia elongata</i>	Slender Hair Grass	1
<i>Hordeum brachyantherum</i>	Meadow Barley	2
	Total Lbs/Acre	29

BES will provide and install all native woody plant materials. Materials will consist of native trees and shrubs in the form of bare-root seedlings and live cuttings. Most plant materials are collected and/or propagated from a Portland metro area wild population/seed source. Installation of these materials shall occur in winter 2011. The table below lists the plant species and planting density.

PROPOSED PLANTING –NATIVE PLANT LIST

Species	Common Name	Plant Density
Trees		
<i>Pseudotsuga menziesii</i>	Douglas Fir	820/acre
<i>Fraxinus latifolia</i>	Oregon Ash	
<i>Populus trichocarpa</i>	Black Cottonwood	
<i>Salix laisiandra</i>	Pacific Willow	
<i>Rhamnus purshiana</i>	Cascara	
<i>Alnus rubra</i>	Red Alder	
<i>Thuja plicata</i>	Western Red Cedar	
Shrubs		
<i>Spirea douglasii</i>	Spirea	820/acre
<i>Ribes sanguineum</i>	Red Flowering Currant	
<i>Sambucus racemosa</i>	Red Elderberry	
<i>Cornus sericea</i>	Red Osier Dogwood	
<i>Physocarpus capitatus</i>	Pacific Ninebark	
<i>Symphocarpus alba</i>	Snowberry	
Live Cuttings		
<i>Salix laisiandra</i>	Pacific Willow	1000/acre (live cuttings)
<i>Spirea douglasii</i>	Spirea	
<i>Cornus sericea</i>	Red Osier Dogwood	
<i>Physocarpus capitatus</i>	Pacific Ninebark	

Actual numbers of plants may be adjusted and species substitutions may be made depending on availability of plant stock. Trees will be planted on approximately 8 foot spacing, and each tree will be protected with a vexar mesh tube to reduce mortality due to herbivore damage. Shrubs will be planted in clusters of three and staked with bamboo.

Monitoring Plan: BES Watershed Revegetation Program staff have prepared detailed monitoring and documentation guidelines for revegetation sites to assess conditions and trends in order to increase the continued success of planting projects (attachment #5, Exhibit A.1 in application case file). Monitoring includes assessment of plant mortality and its causes. BES will interplant areas where stocking falls below a level that will ensure occupancy of the site by native plants within 10 years. BES may prescribe other treatments to reduce further plant mortality or to further enhance project areas.

Non-native vegetation will be suppressed by mechanical or chemical means for the first five years. Cutting and/or spraying treatments will occur 1-4 times annually, depending on regrowth of exotic vegetation. If survival of planted seedlings falls below acceptable levels, maintenance will be intensified and high-mortality areas will be interplanted. It is expected that after the first five years, native trees and shrubs will be well established.

Land Use History: City records indicate there are no prior land use reviews for this site.

Agency Review: A “Notice of Proposal in Your Neighborhood” was mailed. The following Bureaus have responded with no issues or concerns (Exhibits E.1 – E.4 in application case file):

- Bureau of Environmental Services
- Bureau of Transportation Engineering
- Water Bureau
- Site Development Section of BDS

Neighborhood Review: A Notice of Proposal in Your Neighborhood was mailed on. No written responses have been 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.

Findings: The approval criteria which apply to the proposed creek enhancements are found in Section 33.430.250 B. Resource Enhancement Projects. The applicant has provided findings for these approval criteria and BDS Land Use Services staff members have revised these findings or added conditions, where necessary to meet the approval criteria.

B. Resource enhancement projects. In resource areas of environmental zones, resource enhancement projects will be approved if the applicant's impact evaluation demonstrates that all of the following are met:

1. There will be no loss of total resource area;

Findings: The project and its merits are described in detail on pages 1-7 of this report. To summarize the information on pages 1-7, the project will result in more resource area by permanently removing the culvert under the carport, while upgrading the Tenino and Umatilla culverts to “fish friendly” culverts on Crystal Springs Creek. The project also reduces impervious surfaces by removing the triplex foundation and associated driveway, resulting in an *increase* in resource area. The health of the stream will further benefit by improving portions of the streambank, pool creation, installation of large wood into the

bank and stream, removing invasive vegetation, planting native vegetation and adding spawning gravels.

Upon project completion there will not be a total loss of resource area. Rather, the total resource area will be increased. This criterion is met.

2. There will be no significant detrimental impact on any resources and functional values; and

3. There will be a significant improvement of at least one functional value.

Findings: The construction management and enhancement plans are described in detail on pages 1-7 of this report and are summarized here to reiterate these aspects of the project. The proposed construction management activities, described above, will protect the environmental resources and functional values at this site. Functional values will be improved as follows:

Significant resource values for Crystal Springs are identified as: water, storm drainage, fish and wildlife habitat, flood storage, scenic qualities, heritage, recreation and education.

Groundwater infiltration will increase, stormwater runoff will decrease, and fish habitat in the stream will improve, with replacement of the existing culverts, daylighting of Crystal Springs Creek, and removal of the driveway, and building foundations.

Removal of the existing foundation, culvert and driveway at 8220 SE 21st Avenue, along with daylighting the creek and regrading the banks will also provide amphibian, reptile and bird habitat. The new street culverts are “oversized” which will also improve mammal crossings. All areas will be planted with native plants that existed in the area historically.

The project will result in a net removal of fill. Flood storage will increase due to the creation of pools and laying back the banks of the creek.

Scenic and aesthetic qualities at this location will be greatly improved as the new vegetation becomes established and flora and fauna respond to restoration. The restored and enhanced stream will provide a significant increase in the aesthetics of the creek and riparian area. The creek and proposed trail will also provide high quality nature viewing for neighborhood residents and visitors to the site.

The property at 8220 SE 21st Avenue will be publicly owned natural area with a trail to provide low impact recreation opportunities for the public.

The Bureau of Environmental Services Environmental Educators will use this site to show school children spawning salmon in the urban environment. In the future, the Parks Bureau will also use this site for educational opportunities.

With construction management practices described on pages 1-7 of this report, and with improvement of the above-listed functions, these criteria are met by the proposal.

33.805.040 Adjustment Review Approval Criteria

This project involves cutting six trees larger than 6 inches in diameter within the Johnson Creek Basin Plan District. Since the trees are not within 10 feet of a proposed building, an Adjustment to Zoning Code Section 33.537.150 D Tree Removal, must be approved.

A. Granting the adjustment will equally or better meet the purpose of the regulation to be modified; and

Findings: The six trees that will be removed will be replaced with 344 trees, 344 shrubs, and 420 live stake cuttings (Exhibit C.11). The restoration project, as a whole, will significantly improve the quality of natural functions on the site. The entire site, including the area within the floodplain, will be densely planted with native vegetation that will provide more than adequate erosion control along the stream. The amount of impervious

surface on the site will decrease with the removal of the triplex and driveway. With plantings as shown on Exhibit C.11 this criterion will be met.

- B.** If in a residential zone, the proposal will not significantly detract from the livability or appearance of the residential area, or if in a C, E, or I zone, the proposal will be consistent with the desired character of the area; and

Findings: The trees that are going to be removed are located within the Residential 2,000 base zone. This project will improve the livability and appearance of the area after replanting 344 trees, and constructing the pedestrian path. There will be more trees planted than are being removed. The desired residential character of the area will not be affected by the removal of the six trees. With plantings as shown on Exhibit C.11 this criterion will be met.

- C.** If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project which is still consistent with the overall purpose of the zone; and

Findings: Only one adjustment is requested. This criterion is not applicable.

- D.** City-designated scenic resources and historic resources are preserved; and

Findings: City designated resources are shown on the zoning map by the 's' overlay; historic resources are designated by a large dot. There are no such resources present on the site. Therefore, this criterion is not applicable.

- E.** Any impacts resulting from the adjustment are mitigated to the extent practical; and

Findings: The impacts of removing six trees will be mitigated by planting with 344 trees, 344 shrubs, and 420 live stake cuttings (Exhibit C.11). With plantings as shown on Exhibit C.11 this criterion will be met.

- F.** If in an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable;

Findings: This project tries to avoid removing trees as much as possible while still regrading portions of the streambank and installing new fish-passable culverts. The project requires a separate Environmental Review application and the impacts on the resources and resource values are evaluated in that review. Overall, the benefits of the project, and replanting the 344 trees, 344 shrubs, and 420 cuttings far outweighs the detrimental impacts, which are temporary (construction related). With plantings as shown on Exhibit C.11 this criterion will be 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.

The trail proposed by the applicant will meet the development standards for trails listed in Zoning Code Section 33.430.190.

CONCLUSIONS

The applicant proposes a stream and riparian enhancement project located on Crystal Springs Creek in southeast Portland between SE Tenino and Umatilla at SE 21st Ave. The Tenino –

Umatilla Culvert Replacement project will replace three culverts on Crystal Springs Creek. All three culverts are velocity barriers that currently prevent upstream passage of juvenile salmon. The Tenino and Umatilla St. culvert replacements are located within the right-of-way. The third culvert is located beneath the carport on the 8220 SE 21st Avenue property. Some of the work is outside of the right of way and triggers Environmental Resource Enhancement Review.

Tree removal is necessary to conduct the work although no buildings are proposed, and the Johnson Creek Basin Plan District tree removal regulations must be Adjusted.

The proposed culvert replacement projects, and creek daylighting project improve environmental resource functions and values associated with Crystal Springs Creek and all of the Resource Enhancement and Adjustment approval criteria are met, as described above, and this project should be approved.

ADMINISTRATIVE DECISION

Approval of an Environmental Review for:

- Replacement of the Tenino Culvert;
- Replacement of the Umatilla Culvert;
- Removal of the triplex, carport, driveway, and culvert, and daylighting of the stream at 8220 SE 21st Avenue;
- Construction of a trail at 8220 SE 21st Avenue;
- All site preparation, flow diversion, clearing, grading and construction activities associated with the above work;

Approval of an Adjustment Review for:

- Removal of six trees;

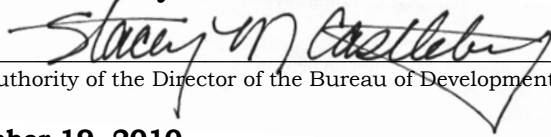
all within the Environmental Conservation overlay zone, and in substantial conformance with Exhibits C.2 through C.11 as signed, and dated by the City of Portland Bureau of Development Services on **November 17, 2010**. Approval is subject to the following conditions:

- A. All permits:** Copies of the stamped Exhibits C.2 through C.11 from LU 10-103405 EN AD and Conditions of Approval listed below, shall be included within all plan sets submitted for permits, if permits are required. 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.11."***
- 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 Tree Protection Plan, or as required by inspection staff during the plan review and/or inspection stages.
- C.** A total of 344 trees, 344 shrubs, and 420 cuttings, selected from the Portland Plant List, shall be planted, in substantial conformance with Exhibits C.11 Planting Plan.
 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 10 feet of mitigation plantings, using handheld equipment.
 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.
- D.** 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 M Castleberry

Decision rendered by:  **on November 17, 2010**
By authority of the Director of the Bureau of Development Services

Decision mailed: November 19, 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 January 15, 2010 and determined to be complete on February 4, 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 January 15, 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 waived the 120-day review period, as stated with Exhibit A.2. **The 120 days will expire on: February 4, 2011.**

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 December 3, 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 **December 6, 2010 – (the first weekday 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:

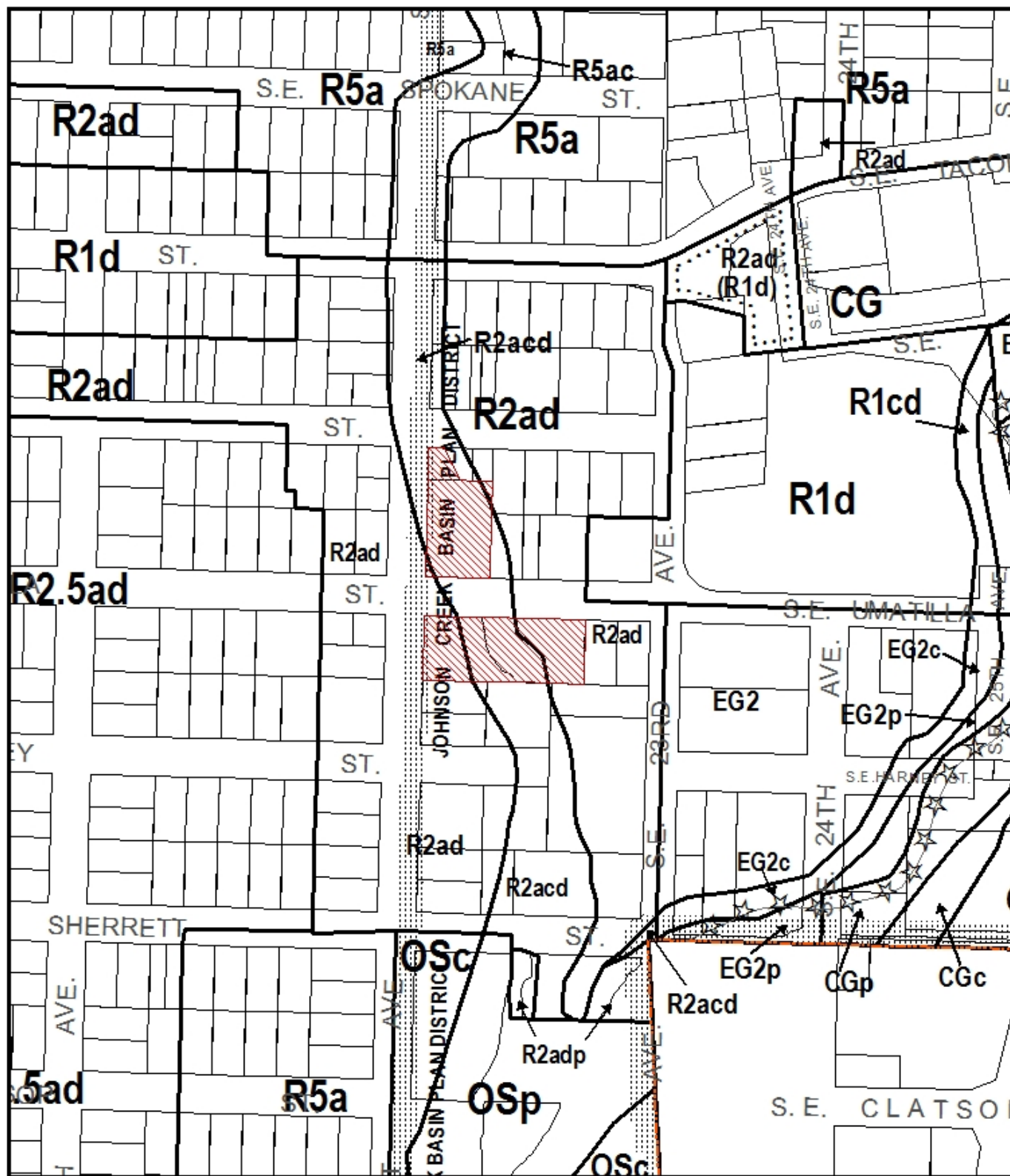
- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and
- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations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

EXHIBITS

NOT ATTACHED UNLESS INDICATED

- A. Applicant's Statements
- B. Zoning Map (attached)
- C. Plans/Drawings:
 - C.1 through C.11 (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. Site Development Review Section of BDS
- F. Correspondence:
 - (none received)
- G. Other:
 - 1. Original LU Application
 - 2. Site History Research

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



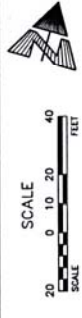
Site



NORTH

This site lies within the:
JOHNSON CREEK BASIN PLAN DISTRICT

File No. LU 10-103405 EN,AD
1/4 Section 3832
Scale 1 inch = 200 feet
State_Id 1S1E23DD 4700
Exhibit B (Feb 02,2010)



GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING FISH RESCUE WITH THE OWNER'S REPRESENTATIVE 48 HOURS BEFORE WORK COMMENCES. (NICK NAVAL 503-823-7108)
2. THE PROVIDED FLOW DIVERSION PLAN REPRESENTS A POSSIBLE COURSE OF ACTION AND AS SUCH IS NOT MANDATED BY THE OWNER. ANY CHANGES TO THE FLOW DIVERSION PLAN MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL SUBMIT A FLOW DIVERSION PLAN FOR APPROVAL PRIOR TO MOBILIZATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND INTEGRITY OF ALL TEMPORARY STREAM DIVERSION AND DEWATERING STRUCTURES AND SITE EROSION CONTROL.
4. STREET CLEANING WILL BE CONDUCTED AS NEEDED TO PREVENT TRACKING SEDIMENT OFFSITE.

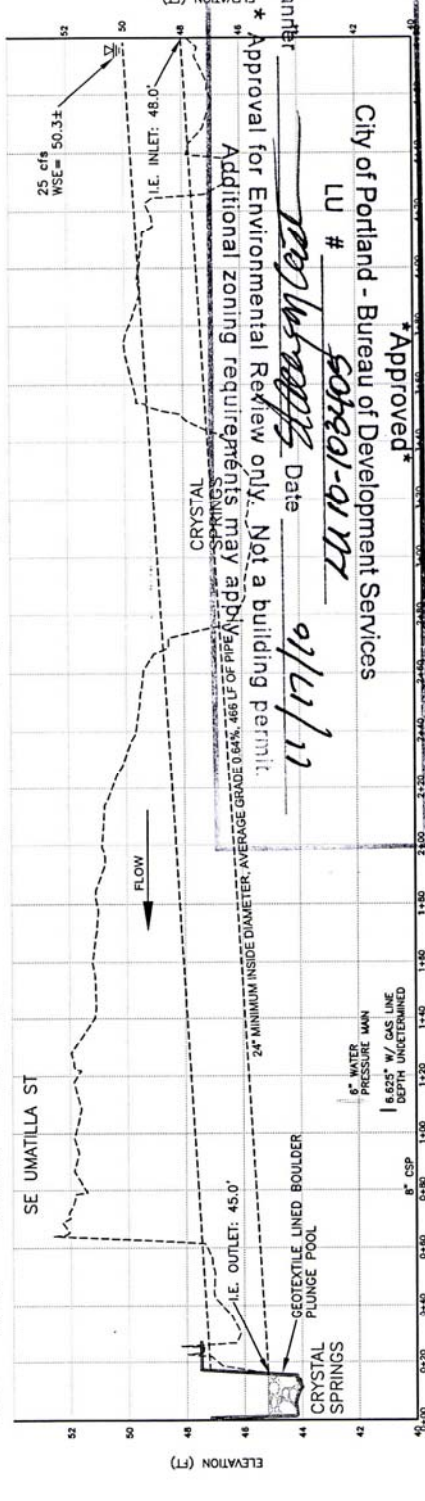
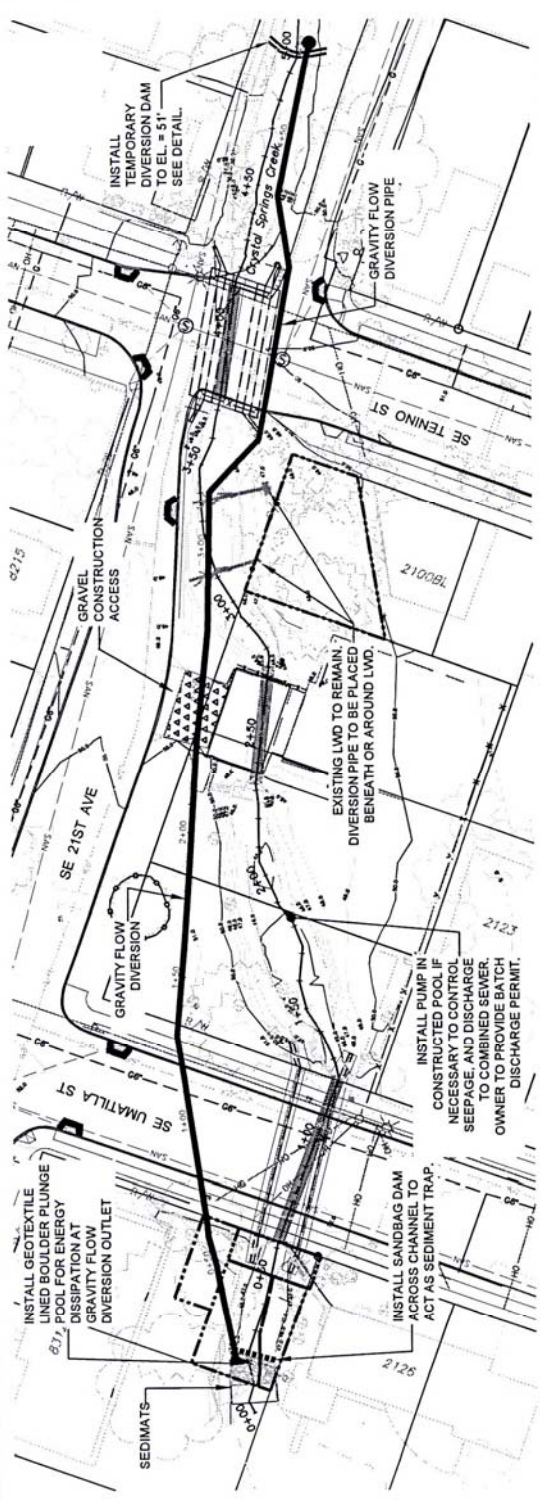
FLOW DIVERSION NOTES:

1. INSTALL GRAVITY FLOW DIVERSION UPSTREAM OF THE SE TENINO AND SE 21ST CROSSING AS SHOWN. THE OUTLET WILL DISCHARGE BELOW THE CONSTRUCTED CHANNEL INTO A TEMPORARY ENERGY DISSIPATION STRUCTURE OF Boulders PLACED ON THE EXISTING STREAMBED.
2. THE DESIGN DISCHARGE FOR THE GRAVITY FLOW DIVERSION IS 25 CFS. AVERAGE FLOW VELOCITY IN THE 3 FT DIAMETER DIVERSION PIPE IS APPROXIMATELY 5 FEET PER SECOND.
3. FOLLOWING FLOW DIVERSION DEWATER AS REQUIRED AND DISCHARGE TO SANITARY SEWER.
4. REMOVE ALL TEMPORARY DIVERSION MEASURES FOLLOWING CONSTRUCTION.

LEGEND

- CHANNEL THALWEG AND STATIONING
- TEMPORARY EASEMENT
- PERMANENT EASEMENT
- EXISTING GROUND CONTOUR (1 FT)
- SHRUB
- DECIDUOUS TREE
- CONIFEROUS TREE

- CONSTRUCTION ACCESS
- STORM DRAIN INLET PROTECTION



EARTHWORK	CU	FT
TOTAL REMOVAL ABOVE CHAN	3.48	
TOTAL REMOVAL BELOW CHAN	1.50	
TOTAL REMOVAL VOLUME	4.98	
TOTAL FILL ABOVE CHAN	2.43	
TOTAL FILL BELOW CHAN	1.50	
TOTAL FILL VOLUME	3.93	

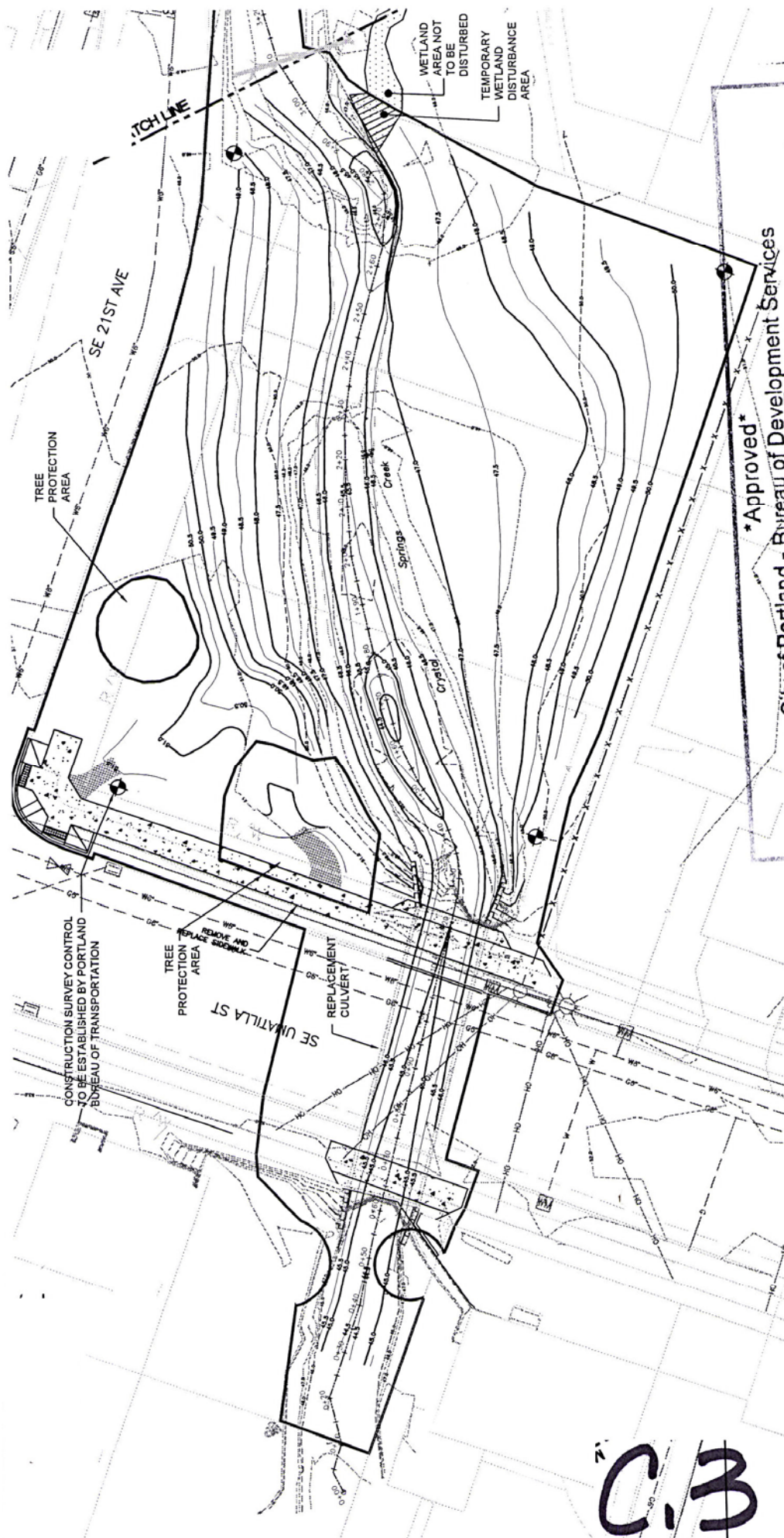
DATE: 01/11/11	SCALE: 1\"/>
----------------	--------------

C.2

City of Portland - Bureau of Development Services
LU # 50921-017
Approved for Environmental Review only. Not a building permit.
Additional zoning requirements may apply.
Date 01/11/11

GRAVITY FLOW DIVERSION PROFILE
PROFILE: 1\"/>

CITY OF PORTLAND ENVIRONMENTAL SERVICES APPROVAL		TENINO THROUGH UMATILLA FISH PASSAGE PROJECT EROSION CONTROL, FLOW DIVERSION AND DEWATERING	
DAN SALTMAN PROJECT MANAGER		3832	
WILLIAM F. RYAN, P.E. CHIEF ENGINEER		E09112	
E09112_005-ENG		C05	
E09112_005-ENG		6 of 39	



C.B.

LEGEND

- 2.00 — CHANNEL THALWEG AND STATIONING
- 48.0 — EXISTING GROUND CONTOUR (0.5 FT)
- 48.00 — GRADING CONTOUR (0.5 FT)
- ▨ WETLAND AREA
- ▨ TEMPORARY WETLAND DISTURBANCE AREA = 65 SQ. FT
- SURVEY CONTROL (Coordinates to be provided)

Approved
City of Portland - Bureau of Development Services

LU # 10-103405 Date 11/17/10

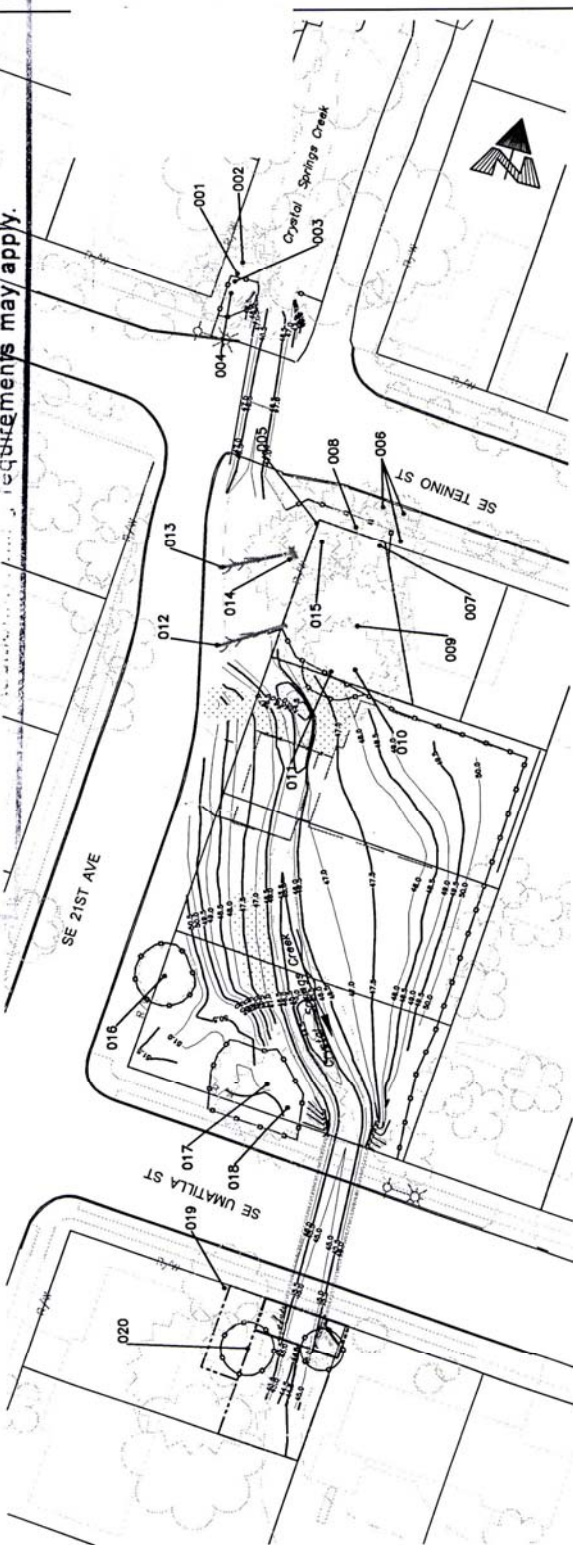
Planner *SMC* DISTURBANCE AREA

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



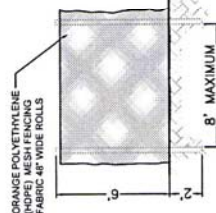
Planner *SMC* 11/17/10

* Approval: *SMC* only. Not a building permit.
Requirements may apply.



TREE PROTECTION MEASURES:

1. PRIOR TO GROUND DISTURBING ACTIVITY, PROVIDE SECURITY FENCING AND EXCLUSION ZONE FENCING AS REQUIRED TO PROTECT TREES AND OTHER PLANTS, WHICH ARE TO REMAIN, FROM ALL UNNECESSARY EXCAVATION, REMOVAL, OR DAMAGE PRIOR TO THE START OF ANY ACTIVITY WHICH MAY POTENTIALLY INTRUDE INTO ROOT ZONES OF TREES DESIGNATED TO BE RETAINED. REMOVE ONLY AFTER ALL WORK POTENTIALLY INJURIOUS TO TREES AND OTHER PLANTS IS COMPLETE. FENCE SHALL BE PLACED AS FAR FROM TREES AS IS PRACTICAL. THE FENCE MUST BE A MINIMUM OF TWENTY FEET FROM THE TRUNKS OF TREES TO BE RETAINED OR AS DIRECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE.
2. ALL CONSTRUCTION AND OTHER VEHICULAR TRAFFIC SHALL BE EXCLUDED FROM AREAS OUTSIDE THE LIMITS OF DISTURBANCE IN ORDER TO RETAIN UNDISTURBED NATURAL VEGETATION AREAS. THERE SHALL BE NO DISTURBANCE OF NATIVE VEGETATION OUTSIDE OF THE LIMITS OF DISTURBANCE AS SHOWN IN THE APPROVED TREE REMOVAL/PROTECTION PLAN.
3. AVOID DAMAGE TO THE CANOPY OF ANY TREES OVERHANGING THE LIMITS OF DISTURBANCE (SEE SPECIFICATIONS).



1. 5' EXCLUSION ZONE FENCE
SCALE: NTS

PROTECTED TREES

TREE NO	TREE SIZE	TREE TYPE	TREE STATUS
001	8"	FIR	TO BE PROTECTED
002	10"	FIR	TO BE PROTECTED
003	12"	FIR	TO BE PROTECTED
004	10"	CEDAR	TO BE PROTECTED
005	13"	COTONWOOD	TO BE PROTECTED
006	3"	PONDEROSA PINE	TO BE PROTECTED
007	12"	PINE	TO BE PROTECTED
008	7"	DOUGLAS FIR	TO BE PROTECTED
009	32"	CEDAR	TO BE PROTECTED
010	25"	CEDAR	TO BE PROTECTED
011	18"	CEDAR	TO BE PROTECTED
012	30"	PACIFIC WILLOW (TOPPED)	TO BE PROTECTED
013	12"	OREGON ASH	TO BE PROTECTED
014	13"	CEDAR	TO BE PROTECTED
015	9"	CEDAR	TO BE PROTECTED
016	15"	BLUE SPRUCE	TO BE PROTECTED
017	30"	WESTERN RED CEDAR	TO BE PROTECTED
018	30"	WESTERN RED CEDAR	TO BE PROTECTED
019	15"	BIRD CHERRY	TO BE PROTECTED
020	15"	SILK TREE	TO BE PROTECTED

- NOTES:
1. 2x2" STEEL FENCE POSTS, INSTALL AS SHOWN ON PLANS.
 2. FASTEN FABRIC TO FENCE PER MANUFACTURER'S RECOMMENDATION.
 3. ENSURE ALL POSTS ARE SET FIRM AND STABLE INTO GROUND MIN. 2'-0" DEPTH.

CITY OF PORTLAND DATUM AND NAD 1983-91



CITY OF PORTLAND
ENVIRONMENTAL SERVICES
APPROVAL
DAN SALTMAN
COMMISSIONER
PUBLIC AFFAIRS
WILLIAM F. RYAN, P.E.
CHIEF ENGINEER

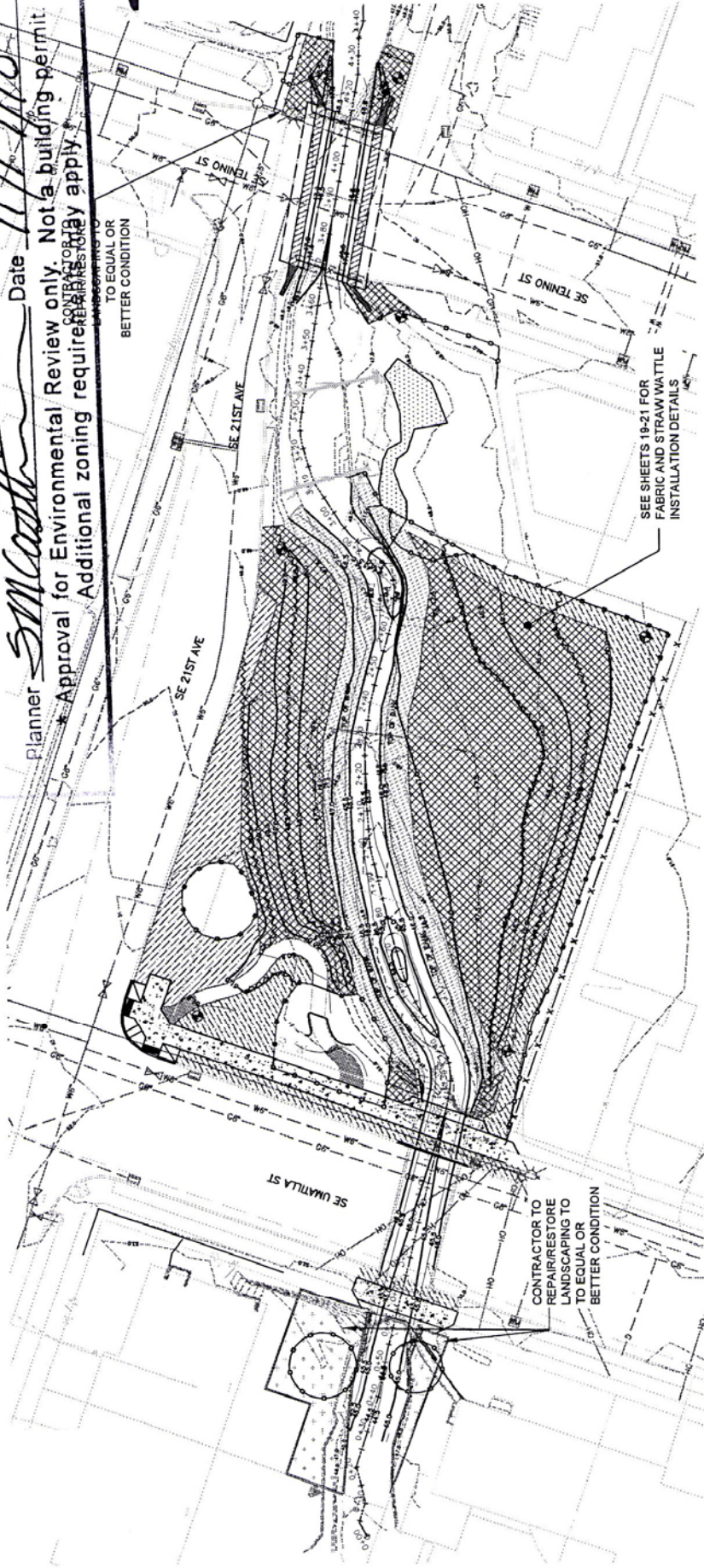
DATE	REVISION	BY	DATE
11/17/10	1	SMC	11/17/10

DATE	11/17/10
PROJECT	TENINO THROUGH UMATILLA FISH PASSAGE PROJECT
PROJECT NO.	10-103406
PROJECT NAME	TREE PROTECTION AND BAMBOO REMOVAL PLAN
PROJECT LOCATION	SE 21ST AVE, SE UMATILLA ST, SE TENINO ST
PROJECT AREA	0.15 AC
PROJECT OWNER	CITY OF PORTLAND
PROJECT ENGINEER	WILLIAM F. RYAN, P.E.
PROJECT ARCHITECT	SMC
PROJECT LANDSCAPE ARCHITECT	SMC
PROJECT CIVIL ENGINEER	SMC
PROJECT ELECTRICAL ENGINEER	SMC
PROJECT MECHANICAL ENGINEER	SMC
PROJECT PLUMBING ENGINEER	SMC
PROJECT STRUCTURAL ENGINEER	SMC
PROJECT TRAFFIC ENGINEER	SMC
PROJECT ENVIRONMENTAL ENGINEER	SMC
PROJECT GEOTECHNICAL ENGINEER	SMC
PROJECT HISTORIC PRESERVATION ENGINEER	SMC
PROJECT OTHER ENGINEER	SMC

C.4

Approved
City of Portland - Bureau of Development Services

Planner *SMC* Date *11/17/10*
LU # *10-103408*
Approval for Environmental Review only. Not a building permit.
Additional zoning requirements may apply.

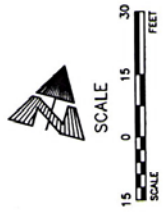


LEGEND

- CHANNEL THALWEG AND STATIONING
- EXISTING GROUND CONTOUR (1 FT)
- COIR STREAMBANK FABRIC
- COIR EROSION CONTROL FABRIC
- REVEGETATION PLANTING AREA
- WETLAND AREA
- TEMPORARY MULCHING (DRY MULCH)
- TEMPORARY TYPE ORANGE PLASTIC MESH FENCE
- SEDIMENT BARRIER (TYPE 3 WATTLES) (See Detail 4, Sheet 20)
- SURVEY CONTROL POINT (Coordinates to be provided)

NOTES:
• NATIVE SEED MIX WILL BE OWNER SUPPLIED, AND PROVIDED TO THE CONSTRUCTION CONTRACTOR FOR APPLICATION TO ALL EXPOSED/DISTURBED SOILS WITHIN THE PROJECT BOUNDARIES.

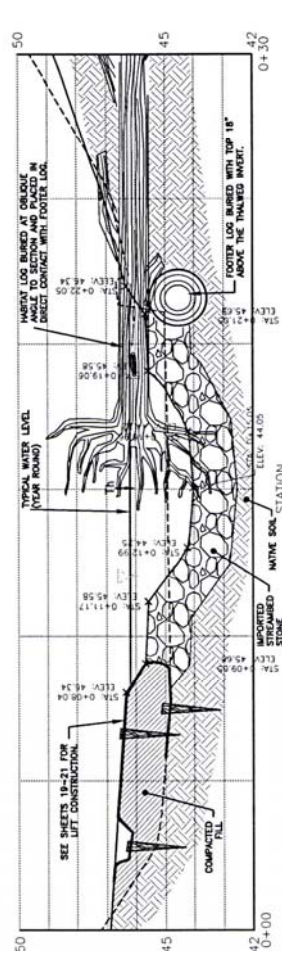
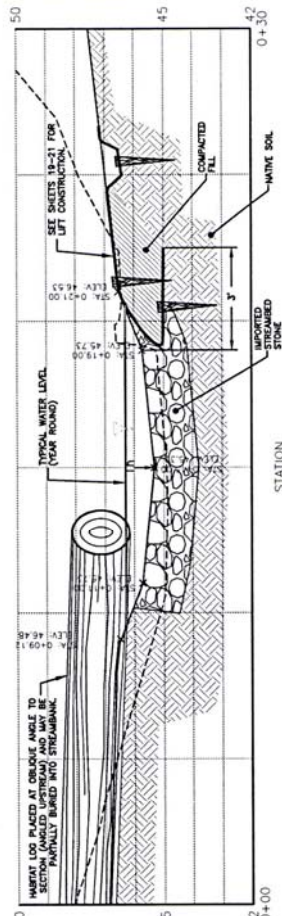
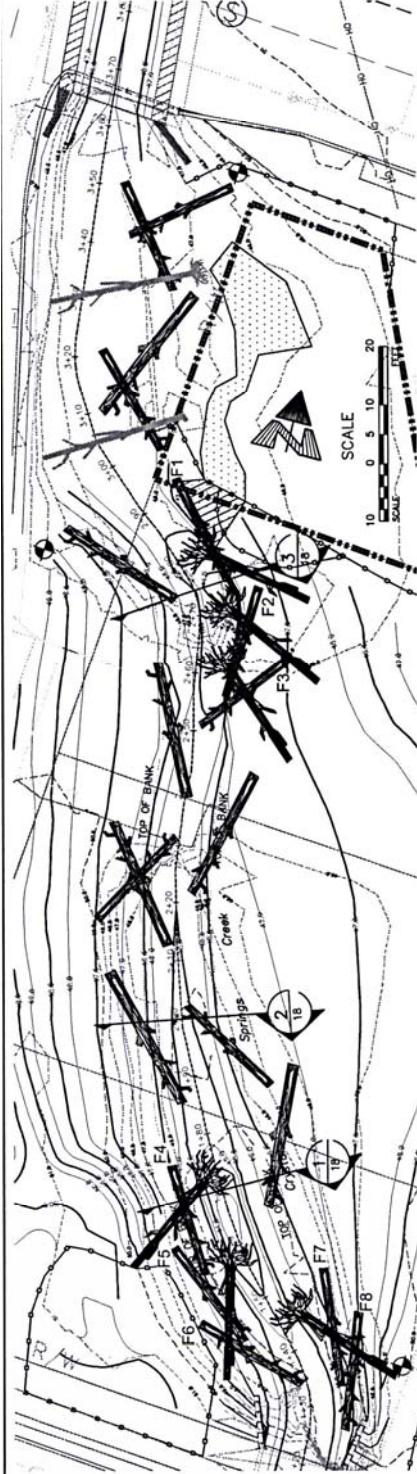
NATIVE SEED MIX	
Common Name	1.00/Acre
Native Grasses	1.5
Brodiaea	1.0
Donna's Galium	1.0
Agrostis exaristata	1.0
Deschampsia cespitosa	1.0
Stenotaphrum secundatum	1.0
Hardstem Broomrape	1.0
Total 1.00/Acre	2.0



C.5

LEGEND

- CHANNEL THALWEG AND ST*
- EXISTING GROUND CONTROL
- GRADING CONTOUR (0.5 FT)
- FOOTER LOG AND ID# (F1)
- ROOT WAD
- HABITAT LOG
- WETLAND AREA
- TEMPORARY WETLAND DISTURBANCE AREA = 65 SC
- SURVEY CONTROL
- TEMPORARY TYPE ORANGE PLASTIC MESH FENCE

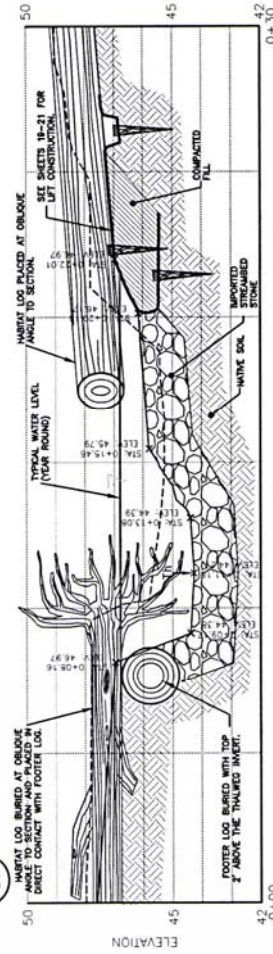


1 TYPICAL POOL SECTION

19 1'-20'

2 TYPICAL RIFFLE SECTION

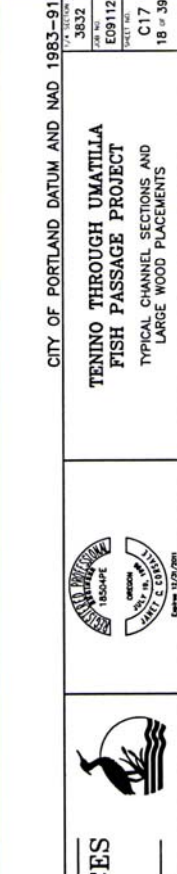
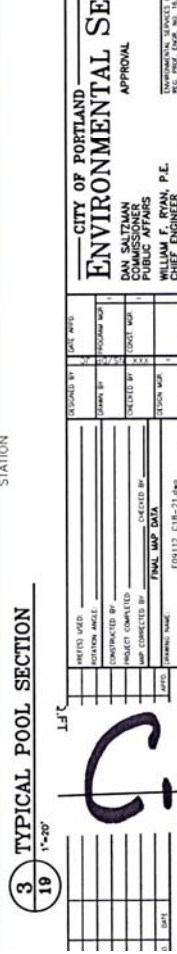
19 1'-20'



Approved
Bureau of Development Services
CROSS SECTIONS LEGEND
--- PROPOSED GRADE U # 10-0388
--- EXISTING GROUND
--- CHANNEL THALWEG
Planning: *SMC* Date: 11/17/10
NOTES: 1. Large wood placements are approximate. Large wood shall be approved by owners representative.

3 TYPICAL POOL SECTION

19 1'-20'



Approved
Bureau of Development Services
CROSS SECTIONS LEGEND
--- PROPOSED GRADE U # 10-0388
--- EXISTING GROUND
--- CHANNEL THALWEG
Planning: *SMC* Date: 11/17/10
NOTES: 1. Large wood placements are approximate. Large wood shall be approved by owners representative.

CITY OF PORTLAND				CITY OF PORTLAND DATUM AND NAD 1983-91			
ENVIRONMENTAL SERVICES				TENINO THROUGH UMATILLA FISH PASSAGE PROJECT			
DAN SALTZMAN COMMISSIONER PUBLIC AFFAIRS				TYPICAL CHANNEL SECTIONS AND LARGE WOOD PLACEMENTS			
P.E.				C17			
ENVIRONMENTAL SERVICES, LLC				18 - 39			
PROJECT NAME: E09112, C18-21, 44g				E09112			
DESIGNED BY: [blank]				3832			
CHECKED BY: [blank]				E09112			
APPROVED BY: [blank]				C17			
DATE: [blank]				18 - 39			

C-6

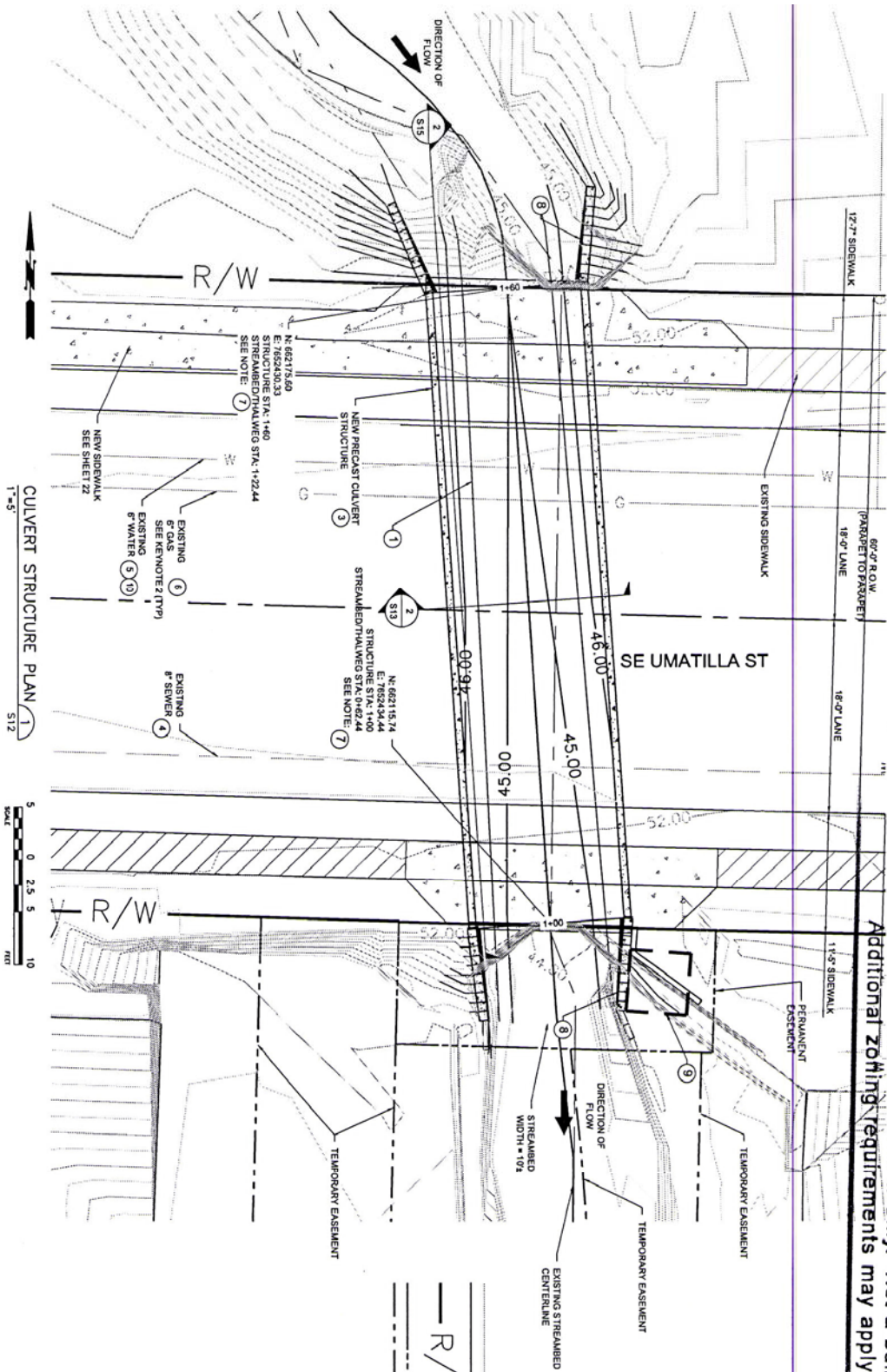
ALIGNING
1/8 (0.5 FT)

Approved
 City of Portland - Bureau of Development Services

LU # 10-103408

Planner SMC Date 11/18/2008 KEY NOTES:

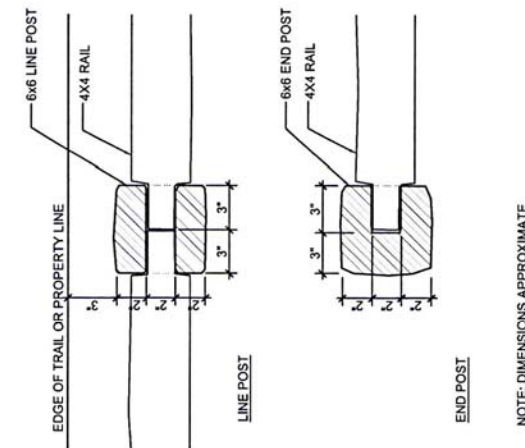
- * Approval for Environmental Review only. Not a building permit. Additional zoning requirements may apply.
- EXISTING AT CULVERT AND HEADWALLS TO BE RELOCATED OR PLACED IN OTHER AREAS AND CONTACT WITH EXISTING SIDEWALKS
 - EXISTING UTILITIES TO BE RELOCATED OR PLACED IN OTHER AREAS AND CONTACT WITH EXISTING SIDEWALKS
 - NEW PRECAST CULVERT STRUCTURE
 - SEWER RELOCATION (SEE SHEET C02)
 - WATER RELOCATION (SEE SHEET C02)
 - GAS RELOCATION BY NORTHWEST NATURAL
 - NORTHING & EASTING REPRESENT CENTER AT END OF CULVERT. SURVEY INFORMATION BASED ON CITY OF PORTLAND DATUM
 - WING WALLS - SEE SHT SM FOR MORE INFORMATION (TYP 4 PCS)
 - CONTRACTOR TO PROTECT ADJACENT RETAINING WALLS & LANDSCAPING TO EQUAL OR BETTER CONDITION AFTER WALLS ARE COMPLETE. SEE SHT S15 FOR MORE DETAILS.
 - EXISTING GANCH WATER MAIN TO BE ABANDONED AT THE TIME OF CONSTRUCTION. CONTRACTOR TO RE-INSTALL UNDER CENTERLINE OF SIDEWALK BY OTHERS.



LEGEND

- EXISTING 1' CONTOURS
- PROPOSED 1' CONTOURS
- R/W
- RIGHT OF WAY
- PERMANENT EASEMENT
- TEMPORARY EASEMENT

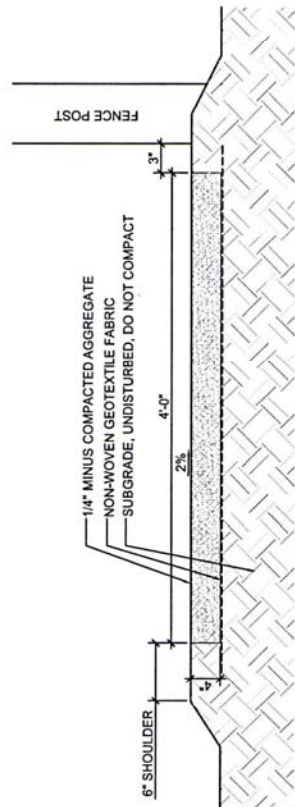
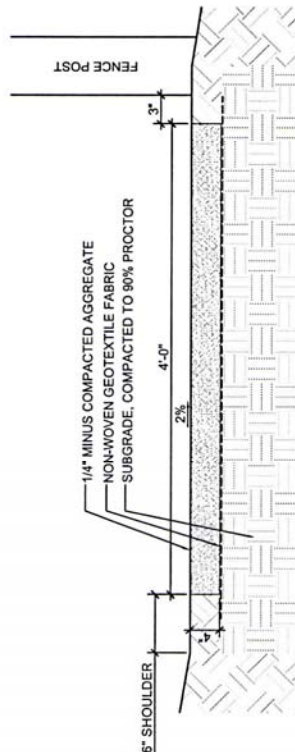




NOTE: ALL LUMBER FOR FENCE TO BE SPLIT, NOT TURNED OR SAWN.

SPLIT RAIL FENCE - ELEVATION $\left(\frac{1}{102} \right)$
Scale: 1" = 1'-0"

Scale: 3" = 1'-0"



NOTES:
1. DO NOT COMPACT SUBGRADE WITHIN EXISTING TREE ROOT ZONES.
2. COMPACT AGGREGATE WITH WATER FILLED ROLLER WITHIN EXISTING TREE ROOT ZONES.

COMPACTED GRAVEL TRAIL - SECTION 3
Scale: 2" = 1'-0" (102')

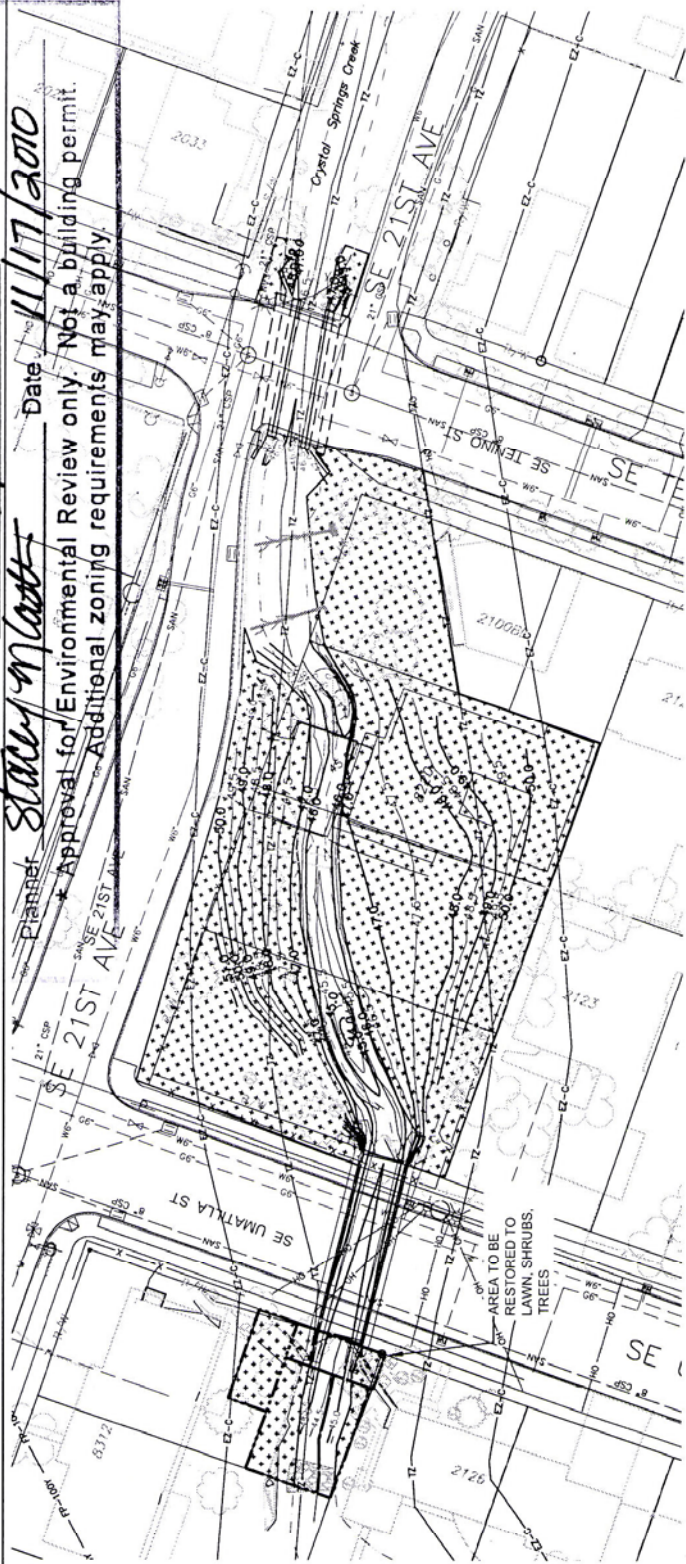
GRAVEL TRAIL @ CEDAR TREES - SECTION 4

PROJECT NO.	DATE	DESIGNED BY	CHECKED BY	APPROVED BY	CITY OF PORTLAND	ENVIRONMENTAL SERVICES APPROVAL DAN SALTZMAN COMMISSIONER PUBLIC AFFAIRS WILLIAM F. RYAN, P.E. ENVIRONMENTAL SERVICES CHIEF ENGINEER		Mayor's Record City of Portland 1000 SW 4th Ave., 10th Floor Portland, Oregon 97204 Tel. 503-221-2211	PROJECT NO. 38332 JOB NO. E09112 SHEET NO. L02 TOTAL SHEETS 39 OF 39	CITY OF PORTLAND DATUM AND NAD 1983

Approved
City of Portland - Bureau of Development Services
LU # 10-103405 ENAD

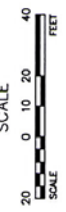
Planner Stacy M. Carter Date 11/17/2010

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



C.11

PLANTING SPECIES LIST:



LEGEND

- CHANNEL THALWEG AND STATIONING
- EXISTING GROUND CONTOUR (1 FT)
- E-C ENVIRONMENTAL ZONE C BOUNDARY
- PP-100Y 100 YEAR FLOOD PLAIN BOUNDARY
- TZ TRANSITION ZONE BOUNDARY
- SHRUB
- DECIDUOUS TREE
- CONIFEROUS TREE

Species	Common Name	Plant Density
Trees		
<i>Pseudotsuga menziesii</i>	Douglas Fir	820/acre 344 trees
<i>Prunus laurocerasus</i>	Oregon Ash	
<i>Populus trichocarpa</i>	Black Cottonwood	
<i>Salix lasioandra</i>	Pacific Willow	
<i>Thuja plicata</i>	Cascade	820/acre 344 shrubs
<i>Alnus rubra</i>	Red Alder	
<i>Thuja plicata</i>	Western Red Cedar	
<i>Spirea</i>	Spirea	
<i>Ribes sanguineum</i>	Red Highbush	1000/acre 420 cuttings
<i>Sambucus racemosa</i>	Red Elderberry	
<i>Cornus sericea</i>	Red Osier Dogwood	
<i>Physocarpus opulifolius</i>	Pacific Ninebark	
<i>Symphoricarpos alba</i>	Snowberry	
Live Cuttings		
<i>Salix lasioandra</i>	Pacific Willow	
<i>Spirea douglasii</i>	Spirea	
<i>Cornus sericea</i>	Red Osier Dogwood	
<i>Physocarpus opulifolius</i>	Pacific Ninebark	

NOTES:

- ACTUAL NUMBERS OF PLANT'S MAY BE ADJUSTED AND SPECIES SUBSTITUTIONS MAY BE MADE DEPENDING ON AVAILABILITY OF PLANT STOCK.
- TREES WILL BE PLANTED ON APPROXIMATELY 8 FOOT SPACING, AND EACH TREE WILL BE PROTECTED WITH A VEXAR MESH TUBE TO REDUCE MORTALITY DUE TO HERBIVORE DAMAGE. SHRUBS WILL BE PLANTED IN CLUSTERS OF THREE AND STAKED WITH BAMBOO.
- IN GENERAL, RIPARIAN/WETLAND SPECIES SUCH AS RED ALDER, OREGON ASH, NINEBARK, RED OSIER DOGWOOD, ETC. WILL BE PLANTED ALONG THE CREEK, THE MORE UPLAND AREAS WILL BE PLANTED WITH CONIFER FOREST-ASSOCIATED SPECIES (SUCH AS DOUGLAS FIR, RED FLOWERING CURRANT, SNOWBERRY, ETC) AT A SOMEWHAT LOWER DENSITY.
- TOTAL AREA TO BE PLANTED WITH RIPARIAN SPECIES IS 18,385 SQ. FT. (0.42 ACRES).
- TOTAL DISTURBANCE AREA \$ 23,305 SQ. FT. (0.53 ACRES).

PROJECT NO.	DATE APPR.	DESIGNED BY	DATE APPR.
REVISION MADE		DRAWN BY	DATE APPR.
CONSTRUCTED BY		CHECKED BY	DATE APPR.
PROJECT COMPLETED		CHECKED BY	DATE APPR.
MAP CORRECTED BY		CHECKED BY	DATE APPR.
FINAL MAP DATA		CHECKED BY	DATE APPR.
APPROVED		DESIGNED BY	DATE APPR.
DESCRIPTION			
REVISION			

REVEGETATION PLANTING AREA

CITY OF PORTLAND
ENVIRONMENTAL SERVICES



L.U.R. PERMIT

TENINO THROUGH UMATILLA
FISH PASSAGE PROJECT
PLANTING PLAN