133384

BOOK 183 PAGE 192

Return Address:

K.W. Peterson Co. Inc.
P O Box 159
Stevenson, WA 98648-0159

FILED FOR RECORD
SKAMANIA COUNTY, WASH
BY K W Peterson Co.
No. 12 11 32 AM '98
P Lowry
AUDITOR
GARY M OLSON

Please Print or Type Information.

Document Title(s) or transactions contained therein:

1. Site Inspection
2.
3.
4.

GRANTOR(S) (Last name, first, then first name and initials)

1. Bell Design
2.
3.
4.

[ ] Additional Names on page _____ of document.

GRANTEE(S) (Last name, first, then first name and initials)

1. Peterson, Daryl
2. Redtail Short Plat
3.
4.

[ ] Additional Names on page _____ of document.

LEGAL DESCRIPTION (Abbreviated: i.e., Lot, Block, Plat or Section, Township, Range Quarter/Quarter)

Section 26, Township 3 North, Range 8 E.W.M.

[ ] Complete legal on page _____ of document.

REFERENCE NUMBER(S) Of Documents assigned or released:

[ ] Additional numbers on page _____ of document.

ASSESSOR'S PROPERTY TAX PARCEL/ACCOUNT NUMBER
03-08-26-0-0-1400-00
[ ] Property Tax Parcel ID is not yet assigned.
[ ] Additional parcel #'s on page _____ of document.

Requested
Indexed, Dir
Indirect
Timed
Marked

The Auditor/Recorder will rely on the information provided on the form. The Staff will not read the document to verify the accuracy or completeness of the indexing information.

BELL DESIGN COMPANY

Civil Engineering • Land Surveying

TECHNICAL MEMORANDUM

SUBMITTED TO: William W. Critz
Skamania County Building Official
Skamania County Building Department
Stevenson, WA 98648
(509) 427-9448

FROM: Devry A. Bell, PE
Bell Design Company

PREPARED BY: Devry A Bell, PE
Bell Design Company

DATE: July 10, 1998

DEVRY A. BELL STATE OF WASHINGTON 21920 REGISTERED PROFESSIONAL ENGINEER
Devry A. Bell
7-10-98
EXPIRES 11-11-99

SUBJECT: Site Inspection of Skamania County Proposed Redtail Short Plat

Introduction

On Wednesday, July 1, 1998, at the request of Daryl Peterson, Bell Design Company performed a visual site inspection of an approximately 13.3 acre land parcel described as the proposed Redtail Short Plat. The owner intends to divide the lot into four lots. Access to the parcel is from both Skamania County's Wind Mountain Road and Rike Road. The purpose of the site inspection was to record any potential slope instability problems on the parcel which may be caused by excessive slopes, structures on structural fill, stormwater runoff from roofs and other impervious surfaces, and subsurface impacts of drainage system and drain fields. This parcel is located on the western slopes of Wind Mountain.

Parcel Description

The irregular shaped parcel, with dimensions approximately 1200 feet by 600 feet, lies with its long length running north and south. The site lies along the western flank of Wind Mountain on steep terrain. Its eastern edge is composed of steep rock talus slopes of up to 100%. Much of the eastern edge of the property lies within the National Scenic Area Special Management Area and will be improved. Scattered mature secondary growth Douglas fir and mixed deciduous trees cover much of the undisturbed slopes of the parcel, which have slopes ranging between 20% and 35%. Wilson Creek winds along the western toe of the property. This creek experiences local flash flooding due to periodic breaching of an upstream beaver dam. Recently, a flash flood caused erosion of the stream banks along the western edge of the parcel. The southern portions of the site have been used for surface mining of sand, soil and rock. The existing surface mine covers approximately 1 to 2 acres. Several existing roads traverse the site. Several of these existing roads have been improved to provide access to the proposed sites. One

P.O. Box 508 • 1000 East Steuben
Bingen, WA 98605
Phone (509) 493-3886 Fax (509) 493-3885

such existing road cuts between the western two proposed lots and the eastern proposed lot. This existing road cut creates a knoll overlooking Wilson Creek and the Columbia Gorge. The primary access to the site has been from Rike road along the north end of the parcel. However, a new southwestern entrance has been constructed from Wind Mountain Road across Wilson Creek. The creek's existing bed is comprised of boulders and silts that will easily translate during flooding conditions. The creek bed is littered with flood wood debris that could cause blocking to the entrance of the cross culvert if not properly maintained. Several existing conditions have allowed for erosion due to surface water runoff from the surface mine towards Wilson Creek. The conditions that have allowed erosion can be easily avoided by adequate placement and maintenance of storm water drainage ditches, riprap energy dissipaters, and the use of gravel surfaced roads.

The parcel, as proposed, will be divided into four new lots. Lot 1 is 2.0 acres, Lot 2 is 2.0 acres, Lot 3 is 4.2 acres and Lot 4 is 5.1 acres. The proposed building sites for Lots 1, 2, and 3 are accessed from Rike Road. Lot 4 is accessed along a driveway across Wilson Creek from Wind Mountain Road. The road grades are reasonable to allow for vehicular traffic during snow and ice conditions.

Each of the proposed lots have building pads leveled for placement of manufactured homes. The pads all vary in size. Building pads for Lots 1 and 2 are located on top of a knoll with Wilson Creek below it to the west. Because of erosion created by flooding on Wilson Creek, Bell Design Company has established a safe line. All permanent building structures and drain fields should be located east of the safe line in order to protect them from potential slope instability. Building pads and road surface water drainage should be routed away from the slopes along Wilson Creek towards the east of the safe line.

Lot 3 has an existing building pad approximately 90 ft by 50 ft wide. This pad could be expanded slightly to the north if required to fit a larger structure. The drain field should be located in such a location as to prevent erosion to any slopes. Residential structures constructed on Lot 3 should be designed with steep terrain in mind. Foundations should be securely placed upon native soils deep enough to prevent sliding in the event of an earthquake. A permanent forest buffer should be maintained to the east of any residential structure to lessen the risk of damage due to rock fall from Wind Mountain. This buffer zone should be 50 ft to 100 ft wide, consisting of existing timber or planted secondary growth. The existing access road to Lot 3 should be ditched along the east side to prevent erosion. Cross culverts may need to be located along this access road, but should be directed away from slopes greater that 20%.

Buildings placed on Lot 4 should be located to the east of the existing access road form the north. Surface runoff water generated within the existing surface mining area should be routed and stilled so that erosion will not occur on the Wilson Creek side of the surface mine. Existing eroded channels should be lined with native rock in an effort to reduce future erosion of native soils. The access road from Wind Mountain Road should be graveled and ditched in order to prevent erosion and add stabilization of the surface. The 60-inch diameter Wilson Creek culvert should be maintained clear and open to prevent braking during flood stages. Additional stone should be placed along the upriver side of the fill crossing to protect it against high water erosion. Whenever possible or allowed by law, the channel above the culvert should be cleaned of excessive wood debris that could possibly plug the culvert during a flood event.

In summary all pads should be protected from surface water runoff erosion prior to placement of homes or other improvements. All lot sizes are adequate and soil conditions do not appear to

present potential drain field adverse effects. No visible sign of slippage, soil tension cracks, or unusual settlement can be seen on, or around, the buildable areas.

Conclusions

Based on review of the surface of the parcel and its adjacent properties no adverse impacts are expected due to drainage systems or drainfields. In the opinion of Bell Design Company the current 13.3 acre site is suitable for the creation of four new lots as proposed. Each new lot and proposed building locations will be suitable for placement of a modular or conventional home with no additional risk of landslides, or additional risk to the safeguard of life, limb, health, property, or public welfare, providing the following recommendations are utilized.

Recommendations

It is recommended that normal mobile home and conventional residential home placement procedures be followed. It should be noted that no building or foundation should be placed on any non-engineered uncompacted fill. All foundation systems should be placed so that all building and live loads are directed to native soils. It is recommended that all drainage of surface water be directed away from the building sites by the use of surface ditches or underground drainpipes. Drainage pipes for gutters should be installed and directed away from new structures. Proper drainage ditches along roadways should be considered to prevent erosion. All earth fills for roads and structures should have their slopes planted with vegetation suitable for the reduction of erosion. The Wilson Creek crossing culvert should be maintained clear and open at all times. No buildings should be located west of the building safe line as established by Bell Design and shown as Exhibit A with the proposed Redtail Short Plat. All drain fields should be located not closer that 50-ft from established high-water marks of existing streams. Other setback restrictions may apply.

It is recommended that the suggested erosion control modifications for Lot 4 be constructed prior to division of the property. These modifications should include placement of riprap rock at the surface water drainage outlet of the existing surface mine, placement of gravel surfacing on the access road to Lot 4, construction of ditches along the access road to Lot 4, and clean-out of the Wilson Creek Culvert. All other recommended modification should be the responsibility of the future developers to the newly created lots.

Limitations

Bell Design Company makes these recommendations based solely on evidence as seen in the visual inspection of the premises on the date stated above. No other information, data, soil borings, slope indicator reports, slippage monitors, density tests, or any other test was performed by Bell Design Company in order to produce this memorandum. Bell Design Company can not and does not guarantee that this parcel will never experience slope instability caused by natural catastrophes. No warranty, express or implied, should be understood.