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Document Title(s) or transactions contained therein:

1. Site Inspection Report
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GRANTOR(S) (Last name, first, then first name and initials)

1. Braun Intertec Corporation
2.
3.
4.

[ ] Additional Names on page _____ of document.

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

1. Alpine Quality Construction
2. View Short Plat
3.
4.

[ ] Additional Names on page _____ of document.

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

SE4 Section 25, T3N R7EWM

[ ] Complete legal on page _____ of document.

REFERENCE NUMBER(S) Of Documents assigned or released:

Vol 3 Pg 334 of Short Plats

[ ] Additional numbers on page _____ of document.

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ASSESSOR'S PROPERTY TAX PARCEL/ACCOUNT NUMBER

03-07-25-4-0-0300-00

[ ] Property Tax Parcel ID is not yet assigned.

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BRAUN INTERTEC

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503-289-1778 Fax: 289-[illegible]

Engineers and Scientists Serving the Built and Natural Environments

February 20, 1997
Revised August 17, 1998
Revised August 31, 1998

Project No. EAAX-97-0158
Report No. 09-027-2760

Mr. Terry Ryan
Alpine Quality Construction Services
16305 S.E. 1st Street
Vancouver, Washington 98684

Dear Mr. Ryan:

Re: Preliminary Site Stability Evaluation Report
View Short Plat, Baker Road, Stevenson, Washington

In 1997, Braun Intertec Corporation conducted a site reconnaissance of the referenced site to evaluate site stability and landslide hazards. Authorization for our initial services was provided by Mr. Terry Ryan on February 6, 1997. This report represents a revision to the initial February 20, 1997, report based upon division of the property into short plats, modifications suggested by county official feedback, and recent site visits on July 28, 1998 and August 13, 1998. Please refer to previous reports (09-027-2760 dated February 20, 1997, and 09-107-3337 dated October 6, 1997).

Project Description

The site is located roughly a mile north of the City of Stevenson, near Baker Road, as shown in an attached Site Location Map, Figure 1. It is situated in a portion of the SE 1/4 of Section 25, T3N, R7E, W.M. Skamania County, Washington.

We understand that present plans are to develop the site into several individual lots as shown in an attached Lot-Layout Plan, Figure 2, prepared by Lawson Surveying and Engineering.

Purpose and Scope

The purpose of our evaluation was to visually assess the surface soil conditions at the site in order to preliminarily evaluate the site stability and landslide hazards. In general, our scope of work included following specific items:

- Site visits to observe surface conditions at the site and in the site vicinity to evaluate site stability.
- Historical research including aerial photographs and USGS maps.
- Geological and USDA literature review, including the evaluation of available geological hazard maps
- Review of available city and county records on the site development activities.
- Computer modelling using XSTABL software and engineering analyses to evaluate existing site stability.
- Preparation of this report.

Site Description

The short plat is part of an undeveloped parcel of land located west of Kanaka Creek Road. As shown in attached Figure 1, Baker Road runs east-west just to the south of the site. The site is bounded to the north by an airstrip and a plateau, to the east and west by other short plats, and to the south by other portions of the undeveloped 25-acre parcel.

Surface Features

At present, the area is densely wooded in the northernmost portion of the site. The remaining portion of the site is generally cleared.

The topography of the site and surrounding area generally consists of a northern plateau near El. 900 which trends gently downslope to a steeper slope (50 to 60 feet at 0.5H:1V) just north of Baker Road. South of Baker Road, the site topography is rolling and gently sloping downwards to the south.

Site Specific Stability Observations

At the time of our 1997 site visit, we noted evidence of erosion from surface water run-off over the steep cleared slope just north of Baker Road. We noted minor surface water drainages generally running from the northern elevated areas to the southern low lying area. In general, we did not notice unusual surface water features such as filled depressions, deep creeks, disarranged drainage systems, etc which are sometimes indicative of previous landslide activities or slope instability.

During our 1997 and more recent site visits, we did not notice scarps, crevices and depressions, tension cracks in the ground surface, severely bent tree bottoms, tilted trees, irregular toes, exposed surfaces of ruptures without vegetation, presence of distinct fast growing vegetation, undrained depressions, etc. that are generally indicative of active and/or inactive landslides or slope instability.

Site Vicinity Observations

Our site reconnaissance did not indicate visual evidence of slope instability or landslide hazards in areas adjacent to the site boundaries at the time of our site visits.

Based on our interviews with the City of Stevenson officials, we believe, an unstable area exists west of Kanaka Creek Road. This unstable area is located at least one-half mile from the site. There is no visual evidence of this unstable area affecting the site stability. The site is located sufficiently away from the toe of the unstable area. If a major landslide occurs in this unstable area, it is not anticipated to impact the site because of a great distance and the presence of roadways between these two areas. Moreover, the unstable area is being evaluated and mitigated by the city of Stevenson.

Soils and Geology

During 1997, we observed 5-foot to 6-foot high cut slopes along Baker Road, and the cleared face of a 50- foot to 60-foot tall steep slope situated just north of Baker Road. Observations of August 13, 1998, were made of the utility trench along the newly graded roadway which traverses the site. Based on these observations, our knowledge of the site, and our evaluation of in-house data from other projects, in our opinion, the site is generally underlain by medium

dense to dense or stiff mixtures of clays, silts, and fine grained sands, and some cobbles (SM/ML). These soils are generally poorly drained. Based on our geologic literature review, we believe these soils extend to several tens of feet in depth. These soils generally represent completely weathered volcanoclastic rocks and conglomerates that were made of volcanic debris flow, mud flow, and fluvial reworking of volcanic deposits.

Groundwater

As mentioned earlier, we noted evidence of erosion from surface water run-off over the steep cleared slope just north of Baker Road south of the subject site. We noted minor surface water drainagess generally running from the northern elevated areas to the southern low lying area south of Baker Road.

We believe, due to a thick vegetation cover and root system of dense woods on the northernmost area of the site, rainfall over this area is draining surficially to the south. Some infiltration is anticipated to occur over the steep cleared slopes near Baker Road. Due to poorly drained characteristics of soils, surface water run-off continues to flow towards the south in minor natural surficial drainages.

The presence of surface water run-off is an indication of a potential for perched groundwater conditions at the site. Based on our knowledge of the site, we believe the actual groundwater table is fairly deep. The perched groundwater may exist within upper 3 to 5 feet and flows laterally downwards towards the south.

Slope Stability Evaluation

Using the soils/geology and groundwater data mentioned above, in 1997, we performed preliminary site slope stability analyses. We used a computer modelling software (XSTABL) to model on-site slopes. Specifically, we chose conservative soil strength parameters based on the results of our field and research activities. Our results of preliminary slope stability analyses indicated that, at this time, the site is stable from slope instability or landslide hazards perspective.

Conclusions and Recommendations

Based on the results of our field work and engineering analysis, it is our opinion that the site is suitable for the proposed development provided the following general recommendations are incorporated into future design and construction activities at the site.

We recommend that the individual lots be specifically evaluated by a geotechnical engineer after the proposed house construction plans are available. In general, the following issues must be addressed prior to the construction of residential structures on individual lots at the site.

- Stability of any cut slopes and fill slopes to achieve finished floor grade;
- Retaining wall requirements and design;
- Foundation drains and surface drains;
- Subsurface exploration which may consist of test pits, soil borings, or inspection of the excavations for footings to prepare geotechnical recommendations for site preparation and foundation support.

General

This report should not be used for actual construction of structures on the site. We should be contacted to provide geotechnical recommendation once the construction and site development plans are finalized. The conclusions and recommendations presented in this report are subject to the following general conditions.

We understand that this report will be filed with Skamania County, Washington. This report has been prepared for the exclusive use of the addressee and their representative to use to design the proposed structure described herein and prepare construction documents. However, we understand that the information contained herein may be of interest to other parties. The data, analyses and recommendations may not be appropriate for other structures or purposes. We recommend that parties contemplating other structures or purposes contact us. In the absence of

our written approval, we make no representation and assume no responsibility to other parties regarding this report.

Services performed by the geotechnical and materials engineer for this project have been conducted with that level of care and skill ordinarily exercised by members of the profession currently practicing in this area under similar budget and time restraints. No warranty, expressed or implied, is made.

We appreciate the opportunity to be of service to you at this time. We will be pleased to provide additional assistance or information at your request. Please call us at (800)-783-6985 if you have any questions regarding this report.

Sincerely,

William M. Weyrauch, PE
Vice President / Principal Engineer

WILLIAM M. WEYRAUCH
STATE OF WASHINGTON
29346
REGISTERED PROFESSIONAL ENGINEER
EXPIRES: 12 · 02 · 98

Attachments - Site Location Map, Figure 1
Lot Layout Plan - Figure 2

c: Braun Intertec Corporation, St. Cloud

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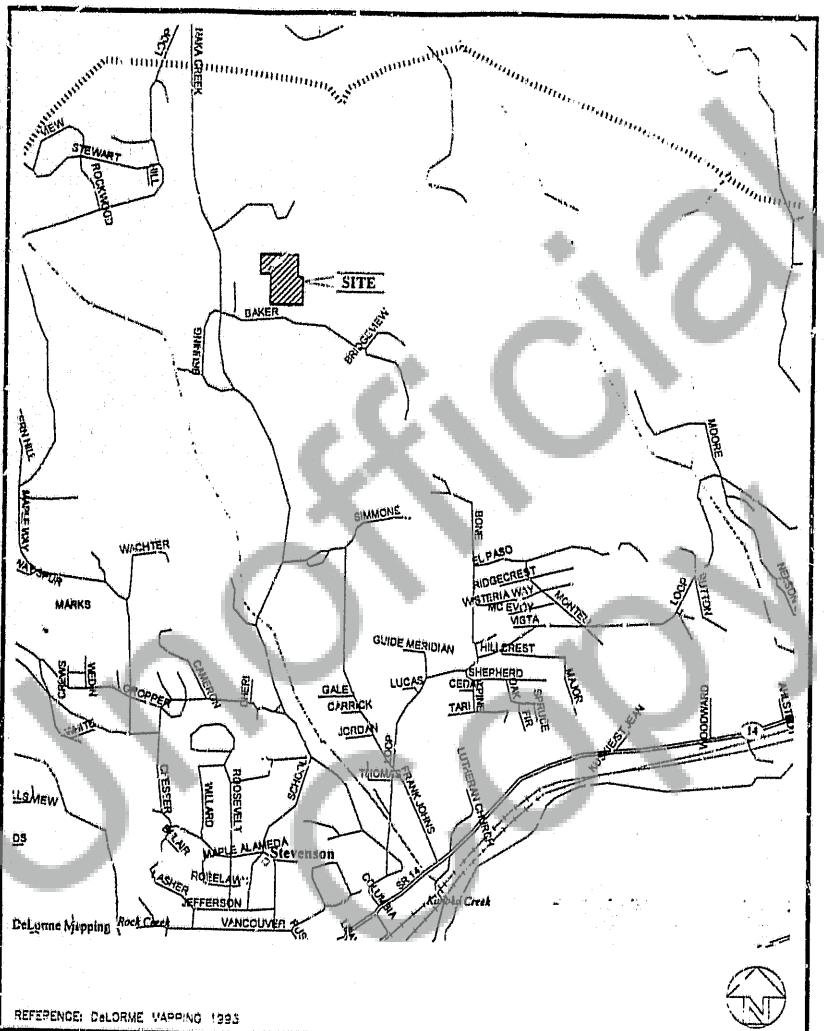
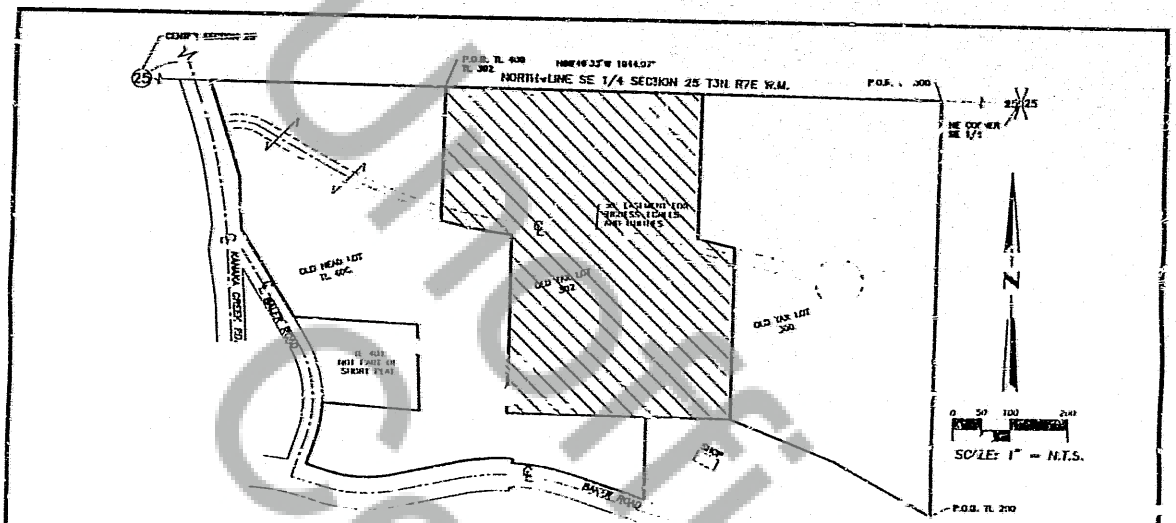


REFERENCE: DeLORME MAPPING 1995

BRAUN INTERTEC	SITE LOCATION MAP VIEW SHORT PLAT KANAKA CREEK ROAD & BAILER ROAD SKAMANIA, COUNTY STEVENSON, WASHINGTON	DRAWN BY: R.F. JOB NO. BAAX-97-0158 DATE: 8-27-98 DRAWING NO.: 1 OF 1 FIGURE NO.: 1 SCALE: N/S



BRAUN INTERTEC

SITE PLAN
VIEW SHORT PLAT
KANAKA CREEK ROAD & BALER ROAD
SKAMANIA COUNTY
STEVENSON, WASHINGTON