



Father John Kerns  
Saint Juan Diego Parish  
c/o St. Pius X  
1280 NW Saltzman Road  
Portland, Oregon 97229

Subject: SAINT JUAN DIEGO PARISH  
WASHINGTON COUNTY, OREGON  
GEOTECHNICAL FEASIBILITY STUDY

Dear Father Kerns:

This letter presents the results of our geotechnical feasibility study for the subject project. The study was performed in accordance with our proposal of June 13, 2007 (Proposal P07-05-90).

#### **PURPOSE AND SCOPE**

This letter presents the results of the geotechnical feasibility study for the proposed Saint Juan Diego Parish in Washington County, Oregon. The site is located at the southwest corner of NW Springville Road and NW 178<sup>th</sup> Avenue. The purpose of this geotechnical feasibility study is to provide the Saint Juan Diego Parish building committee with a general evaluation of the geotechnical conditions at the site and to develop preliminary geotechnical criteria and issues. It is our understanding that this preliminary information will be used in the initial planning process. A more detailed geotechnical investigation will be required as the parish plans become more advanced.

The information presented herein is based on an analysis of existing data obtained during the study and our experience with similar soil and geologic conditions. This report has been prepared for the exclusive use of the Saint Juan Diego Parish and their agents, for specific application to this project, in accordance with generally accepted geotechnical engineering practice. This letter is preliminary in nature and does not contain sufficient information for final project development.

#### **SITE AND PROJECT DESCRIPTION**

The proposed parish site is comprised of approximately 5 acres of vacant land within T1N, R1W, Section 19 in Washington County. The parcel is bounded by NW Springville

Road to the north, NW 178<sup>th</sup> Avenue to the east, and residential development to the south and west. The approximate location is shown in the Site Vicinity Map, Figure 1.

The project site currently consists of a 5-acre parcel that is heavily wooded with areas of dense blackberries. Topographically the site slopes from an elevation of approximately 242 feet at the northwest corner to approximately 202 feet at the southeast property corner. The northern portion of the property is relatively flat, the central portion of the site slopes to the south at inclinations of approximately 8:1 (horizontal to vertical), and the southern property margin becomes relatively flat. Figure 2 presents the current site topographic plan.

At this time the scope of the proposed parish development is in the preliminary planning phase. It is understood that one or more structures may be constructed along with parking lots and driveways.

#### **SOIL CONDITIONS**

The site is anticipated to be underlain by topsoil/forest duff and alluvial flood-deposit soils based on a review of available geologic and geotechnical information, and previous geotechnical engineering studies performed by our firm in the near vicinity. The Soil Survey of Washington County, Oregon has mapped the soil series Helvetia Silt Loam within the general area. This series consists of silty clay and clayey silt soils. Geotechnical explorations performed by our firm at the nearby PCC Rock Creek Campus indicate that the silt and clay soils extend to a depth of at least 40 feet. Perched water is typically encountered near the ground surface during winter months.

Potential geotechnical conditions that will need to be evaluated for the site soils during future studies include the susceptibility to liquefaction, seismic design parameters, and slope stability (if applicable).

## PRELIMINARY CONCLUSIONS

The site is anticipated to be geotechnically feasible for the proposed parish facility. A more detailed geotechnical investigation will be required as project plans become more detailed.

Non-engineered fill, topsoil, and forest duff, where encountered, will be unsuitable for foundation and pavement support. Future geotechnical studies should identify the presence of such materials and recommend potential mitigation measures.

The native, non-organic silt and clay soils would be generally acceptable for structural fills if properly moisture conditioned.

The soil conditions at the site are anticipated to be moisture-sensitive. Soil moisture contents are likely to be above the optimum moisture content required for compaction, even during the summer months. Although techniques are available to mitigate wet weather conditions during construction, such as cement treatment, dry weather construction at this site is recommended.

Based on experience in the area, near-surface perched water will likely be present. Vapor retarders and foundation drains are typically recommended for moisture management. Underslab drain systems may be required beneath building floors if the floor finish grade is below the existing ground surface.

The Soil Survey of Washington County Oregon lists the infiltration rate for the site soils (Helvetia Silt Loam) at approximately 0.2 to 2 inches per hour. On-site stormwater disposal may require large surface areas or other systems to accommodate these infiltration rates. Infiltration testing should be performed during future geotechnical studies to determine the site specific infiltration rate.


Building foundations are anticipated to consist of conventional spread and wall footings.

Saint Juan Diego Parish  
Washington County, Oregon  
Geotechnical Feasibility Study

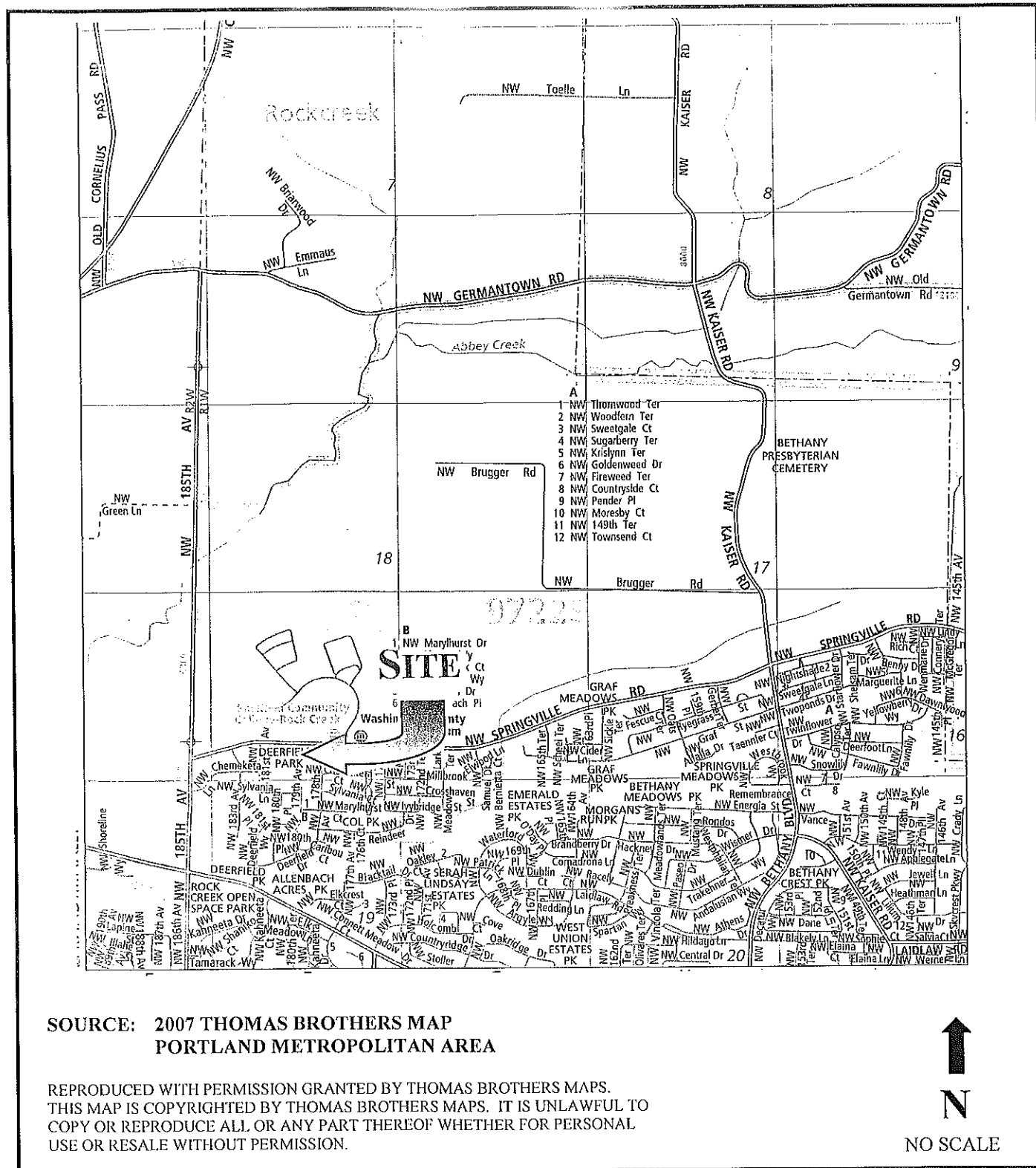
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Please contact the undersigned at your convenience if you have any questions regarding this information.

Sincerely,  
Geocon Northwest, Inc.

  
Wesley Spang, Ph.D., P.E.  
Principal Engineer

cc: Ms. Amy Provost, Robertson Berryman Barnes Architects  
Mr. Brian Jackson, Boora Architects



SOURCE: 2007 THOMAS BROTHERS MAP  
PORTLAND METROPOLITAN AREA

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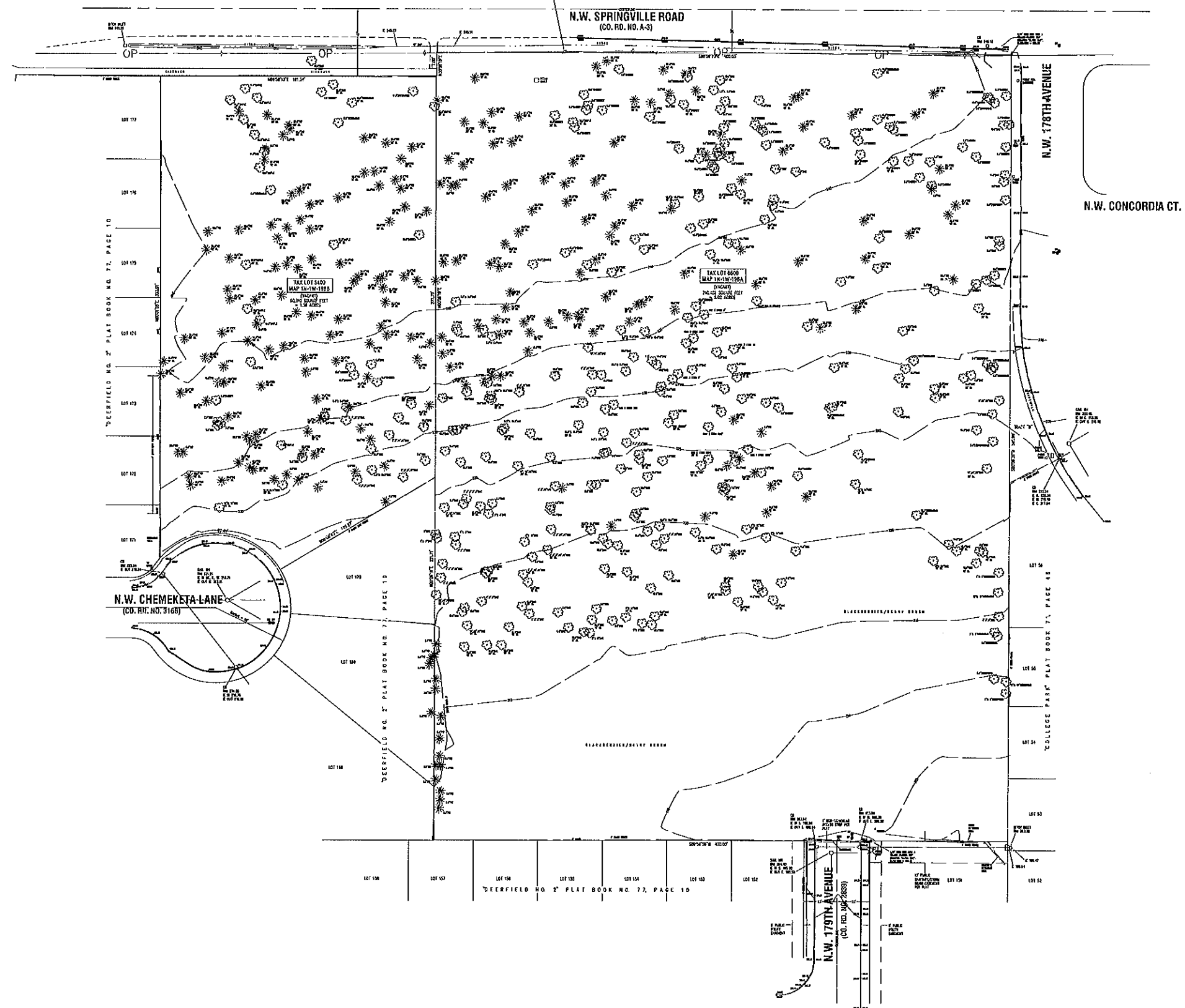
BJW / RSS	DSK / D000D
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**SITE VICINITY**

SAINT JUAN DIEGO PARISH  
WASHINGTON COUNTY, OREGON

June 29, 2007	P1523-05-01	FIG. 1
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SAINT JUAN DIEGO PARISH  
WASHINGTON COUNTY, OREGON



SCALE: 1" = 80'

SITE PLAN		
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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS 8283 SW CIRRIUS DRIVE BEAVERTON, OREGON 97008 - 6443 PHONE 503 626-9889 - FAX 503 626-8611		
DATE	PROJECT NO. P1523-05-01	FIG. 2