



SOIL CONSULTANTS, INC.

Site Development Report

General Grading

**PINWOOD PLACE  
O'FALLON, MISSOURI**

SCI No. 94-192-13

RECEIVED

SEP 30 1994

BUILDING DE

**CITY OF O'FALLON**  
**Construction Inspection Report**

Date: 7-15-98

Project: Pinewood Place Apt.

Address/Location: \_\_\_\_\_

Type of Inspection: reinspection correction list

Weather: \_\_\_\_\_

Approved:  \_\_\_\_\_ Contingent: \_\_\_\_\_

Not Approved: \_\_\_\_\_ Information: \_\_\_\_\_

Remarks: Glen Singleton and I went over the improvements, they were all complete. I recommended him to place siltation contract around AI.

The lift ring from the sanitary structure that need lowered is still on site I told him to remove it. I spoke with Joe Hietkamp on this inspection he said he would take care of the release paper work.

Signed: James Castello F.G.  
City Inspector

Received By: \_\_\_\_\_

September 29, 1994

Mr. Steve Owsley  
Little River Development  
520 North 30th  
P.O. Box 611  
Quincy, IL 62306

RE: General Grading  
Pinewood Place  
O'Fallon, Missouri  
SCI No. 94-192-13

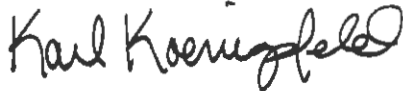
Dear Mr. Owsley:

Please find enclosed three copies of our report "Site Development Report - General Grading - **PINEWOOD PLACE - O'FALLON, MISSOURI**," September 1994.

If you have any questions regarding this report, please call.

Very truly yours,

SOIL CONSULTANTS, INC.



Karl T. Koenigsfeld, P.E.  
Project Engineer



William J. Guerdan, P.E.  
Director of Construction Services



KTK/kaf

Enclosures

cc: Sammons, Buller, Wallace & Esser Architects, w/1 report  
Jerry Campbell, w/1 report  
Mid-Am Construction, w/1 report  
City of O'Fallon w/1 report



SOIL CONSULTANTS, INC

Site Development Report

General Grading

**PINEWOOD PLACE  
O'FALLON, MISSOURI**

LITTLE RIVER DEVELOPMENT  
Developer

SAMMONS, BULLER, WALLACE & ESSER ARCHITECTS  
Architects

BAX ENGINEERING & SURVEYING  
Civil Engineer/Surveyor

DAVE KOLB GRADING, INC.  
Grading Contractor

September 1994

SCI No. 94-192-13

Soil Consultants, Inc.  
333 Mid Rivers Mall Drive  
St. Peters, Missouri 63376-1516



Site Development Report

General Grading

**PINEWOOD PLACE  
O'FALLON, MISSOURI**

**INTRODUCTION**

At the request of Mr. Steve Owsley, with Little River Development, we provided compaction testing services during the general grading at Pinewood Place from June 11, 1994 through July 14, 1994. Due to rain and wet soil conditions, the job was shut down intermittently during this period.

**PROJECT AND SITE DESCRIPTION**

The Pinewood Place development is located on the north side of Tom Ginnever Avenue and east of the existing termination of Knob Hill Drive in O'Fallon, Missouri. The location of the site with respect to the surrounding roads in the area is shown on the Site Plan, Figure 1. The development consists of constructing three 24-unit two-story apartment buildings.

The original topography sloped gently to the east. Maximum relief across the site was approximately 20 feet. The high point was along the west central portion of the site and the low point was along the easternmost property line.

Subsurface conditions were explored by Soil Consultants, Inc. with the results presented in our report entitled, "Exploration of Subsurface Conditions and Foundation Recommendations - **PINEWOOD PLACE - O'FALLON, MISSOURI,**" dated

---

---

June 17, 1994.

**SITE GRADING**

General grading was performed by Dave Kolb Grading, Inc. The grading quantities on the site grading plan indicated approximately 6700 cubic yards of cut and 17,400 cubic yards of fill. The on site cut was located along the western property line. The additional fill material was obtained from a detention basin for the residential development at the north end of this site known as Pinewood Place Estates.

**LABORATORY AND FIELD TESTING**

A moisture-density relationship of the fill material was determined by the modified Proctor test, in general accordance with ASTM D 1557. Atterberg limits, in accordance with ASTM D 4318, were also performed. Results of these tests and sample information are shown on the enclosed Compaction Control Curve, Figure 2.

Density tests were performed using standard drive-tube testing procedures and nuclear densometer methods, in general accordance with ASTM D 2937 and ASTM D 2922, respectively and regionally accepted practice. Results of the field density tests are listed chronologically for each location on the enclosed Compaction Test Summary. The test results listed in the summary are representative of soils placed in the general area of the stated location.

The percent compaction of the test results on the Compaction

---

---

Test Summary is computed as the ratio, expressed as a percentage, of the dry density of the fill sample to the maximum dry density of the soil, as established by the moisture-density relationship. Subsequent references to compaction percentages are made with respect to the modified Proctor maximum dry density.

### **CONCLUSIONS**

Fill placed in building, street and parking areas at the time of our observation has been compacted to a density of at least 90 percent. Areas where tests indicated densities of less than this criteria were rerolled and retested, or rerolled and visually accepted.

All fill placed under our observation has been compacted properly for support of the planned construction. The design and construction considerations presented in our subsurface report should be followed during the balance of the project construction. We should be contacted to provide recommendations for remedial measures if high plastic clays, bedrock, "pumping" soils, groundwater, or other problems are encountered during construction. Subgrade testing in street areas should be performed immediately prior to paving due to surficial construction and/or weather disturbance.



COMPACTION TEST SUMMARY

General Grading

PINEWOOD PLACE  
O'FALLON, MISSOURI

SCI No. 94-192-13

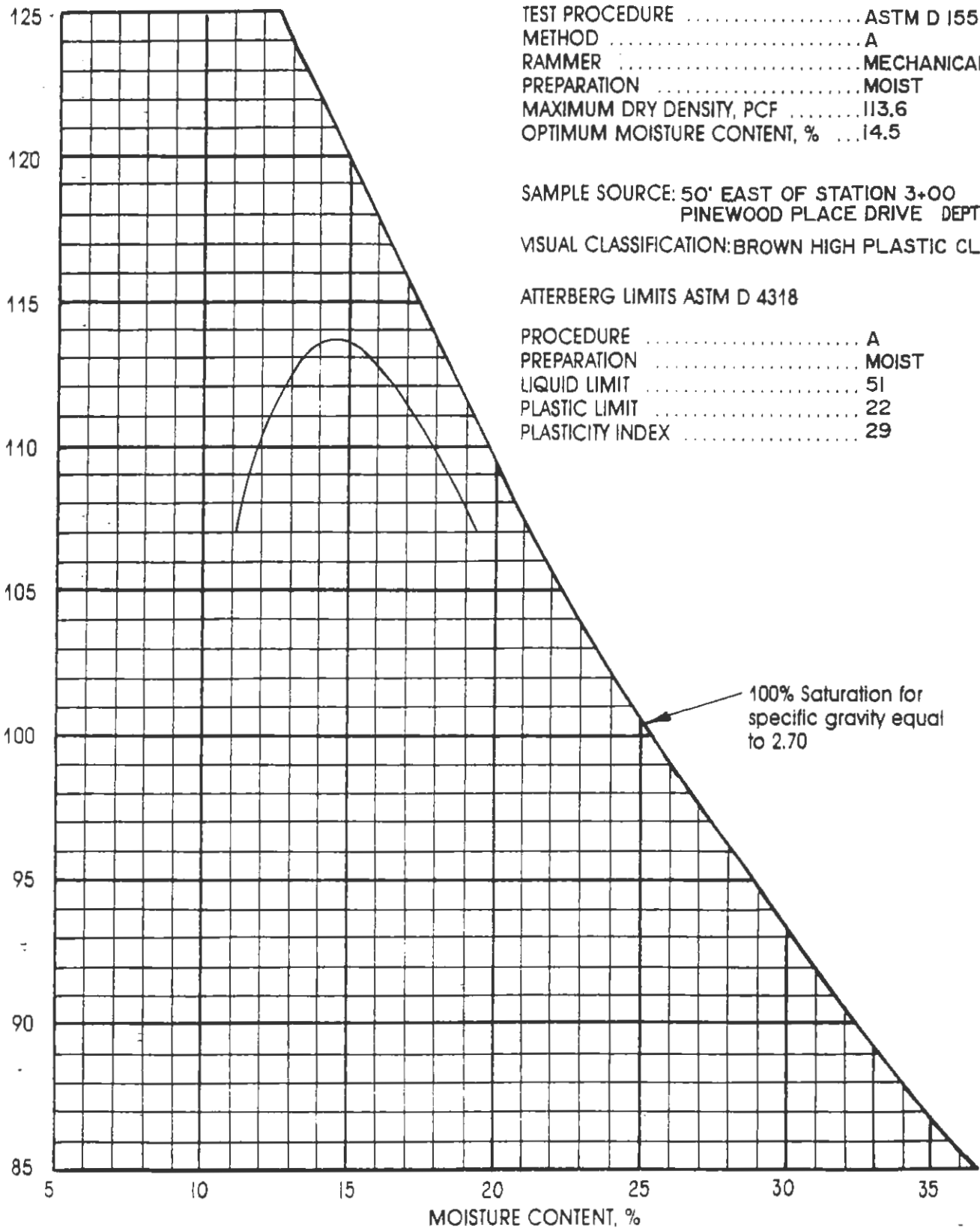
| DATE       | LOCATION | DRY DENSITY (PCF) | W%   | CONTROL (PCF) | % COMPACTION | REMARKS             |
|------------|----------|-------------------|------|---------------|--------------|---------------------|
| Building 1 |          |                   |      |               |              |                     |
| 06-11-94   |          | 101.9             | 14.8 | 113.6         | 89.7         | Rerolled            |
| 06-11-94   |          | 101.4             | 15.9 | 113.6         | 89.3         | Rerolled            |
| Building 2 |          |                   |      |               |              |                     |
| 06-21-94   |          | 103.1             | 21.0 | 113.6         | 90.8         |                     |
| 06-21-94   |          | 103.1             | 21.0 | 113.6         | 90.8         |                     |
| 06-21-94   |          | 100.5             | 21.5 | 113.6         | 88.5         | Rerolled & Retested |
| 07-07-94   |          | 106.9             | 18.0 | 113.6         | 94.1         |                     |
| 07-07-94   |          | 107.4             | 25.6 | 113.6         | 94.5         | Rerolled & Retested |
| 07-13-94   |          | 102.2             | 21.7 | 113.6         | 90.0         |                     |
| 07-13-94   |          | 103.2             | 18.0 | 113.6         | 90.8         |                     |
| 07-13-94   |          | 104.5             | 17.9 | 113.6         | 92.0         |                     |
| 07-13-94   |          | 103.0             | 19.0 | 113.6         | 90.7         |                     |
| 07-13-94   |          | 104.0             | 18.7 | 113.6         | 91.5         |                     |
| 07-13-94   |          | 102.0             | 20.9 | 113.6         | 89.8         |                     |
| 07-13-94   |          | 107.2             | 13.4 | 113.6         | 94.4         |                     |



| DATE       | LOCATION | DRY DENSITY (PCF) | W%   | CONTROL (PCF) | % COM-PAC-TION | REMARKS                       |
|------------|----------|-------------------|------|---------------|----------------|-------------------------------|
| Building 2 |          |                   |      |               |                |                               |
| 07-13-94   |          | 105.9             | 14.5 | 113.6         | 93.2           |                               |
| 07-13-94   |          | 98.9              | 23.7 | 113.6         | 87.1           | Rerolled & Retested           |
| 07-13-94   |          | 98.2              | 24.8 | 113.6         | 86.4           | Rerolled & Retested           |
| 07-13-94   |          | 92.2              | 28.8 | 113.6         | 81.2           | Rerolled & Retested           |
| 07-14-94   |          | 106.6             | 17.9 | 113.6         | 93.8           | Retest                        |
| 07-14-94   |          | 102.5             | 22.0 | 113.6         | 90.2           | Retest                        |
| Building 3 |          |                   |      |               |                |                               |
| 06-16-94   |          | 101.2             | 21.1 | 113.6         | 89.1           | Rerolled                      |
| 06-16-94   |          | 97.7              | 20.9 | 113.6         | 86.0           | Rerolled & Retested           |
| 06-16-94   |          | 106.8             | 16.8 | 113.6         | 94.0           | Retest                        |
| 06-18-94   |          | 95.7              | 24.0 | 113.6         | 84.2           | Rerolled & Retested           |
| 06-18-94   |          | 99.6              | 21.9 | 113.6         | 87.7           | Retest<br>Rerolled & Retested |
| 06-20-94   |          | 100.9             | 21.0 | 113.6         | 88.8           | Retest<br>Rerolled & Retested |
| 06-20-94   |          | 98.2              | 22.2 | 113.6         | 86.4           | Retest<br>Rerolled & Retested |
| 06-21-94   |          | 101.1             | 21.4 | 113.6         | 89.0           | Retest, Rerolled              |
| 06-21-94   |          | 101.5             | 20.4 | 113.6         | 89.3           | Rerolled                      |
| 06-21-94   |          | 102.6             | 22.1 | 113.6         | 90.3           |                               |

| DATE     | LOCATION   | DRY DENSITY (PCF) | W%   | CONTROL (PCF) | % COM-PAC-TION | REMARKS             |
|----------|------------|-------------------|------|---------------|----------------|---------------------|
|          | Building 3 |                   |      |               |                |                     |
| 06-21-94 |            | 100.5             | 19.9 | 113.6         | 88.5           | Rerolled & Retested |
| 07-07-94 |            | 89.3              | 26.3 | 113.6         | 78.6           | Rerolled & Retested |
| 07-07-94 |            | 99.0              | 24.1 | 113.6         | 87.1           | Rerolled & Retested |
| 07-12-94 |            | 113.5             | 15.9 | 113.6         | 99.9           | Retest              |
| 07-12-94 |            | 108.1             | 16.2 | 113.6         | 95.2           | Retest              |
| 07-12-94 |            | 103.6             | 20.4 | 113.6         | 91.2           |                     |
| 07-12-94 |            | 104.6             | 13.3 | 113.6         | 92.1           |                     |
| 07-12-94 |            | 103.5             | 16.5 | 113.6         | 91.1           |                     |
| 07-12-94 |            | 103.5             | 20.4 | 113.6         | 91.1           |                     |
| 07-13-94 |            | 104.2             | 16.2 | 113.6         | 91.7           |                     |
| 07-13-94 |            | 103.9             | 16.5 | 113.6         | 91.5           |                     |
| 07-13-94 |            | 102.9             | 15.0 | 113.6         | 90.6           |                     |
| 07-13-94 |            | 102.4             | 15.2 | 113.6         | 90.1           |                     |

DRY DENSITY, LB./CU. FT.



TEST PROCEDURE ..... ASTM D 1557  
METHOD ..... A  
RAMMER ..... MECHANICAL  
PREPARATION ..... MOIST  
MAXIMUM DRY DENSITY, PCF ..... 113.6  
OPTIMUM MOISTURE CONTENT, % ..... 14.5

SAMPLE SOURCE: 50' EAST OF STATION 3+00  
PINWOOD PLACE DRIVE DEPTH 0.5'-1.5'  
VISUAL CLASSIFICATION: BROWN HIGH PLASTIC CLAY (CH)

ATTERBERG LIMITS ASTM D 4318

PROCEDURE ..... A  
PREPARATION ..... MOIST  
LIQUID LIMIT ..... 51  
PLASTIC LIMIT ..... 22  
PLASTICITY INDEX ..... 29

100% Saturation for  
specific gravity equal  
to 2.70



333 Mid Rivers Mall Drive • St. Peters, Missouri 63376

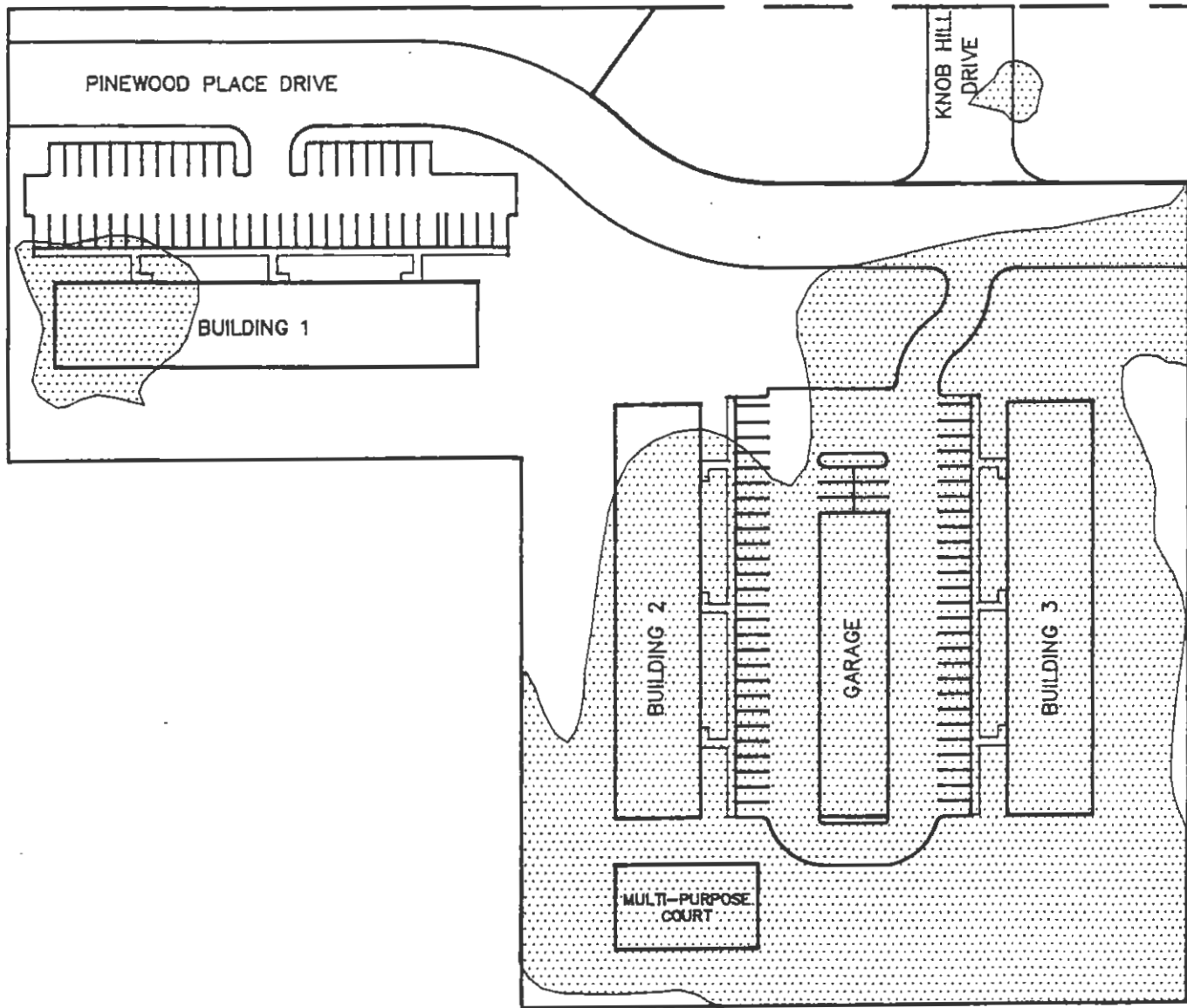
PINWOOD PLACE  
O'FALLON, MISSOURI

COMPACTION CONTROL CURVE

JUNE 1994

SCI NO. 94-192-13

TOM GINNEVER



BASED ON PLAN PREPARED BY  
BAX ENGINEERING, INC.  
DATED MARCH, 1994