

**REPORT OF SUBSURFACE EXPLORATION
AND SITE
DEVELOPMENT RECOMMENDATIONS
THE TOWNHOUSES OF WILLIAMSBURG
PEORIA, ILLINOIS
BY
WHITNEY & ASSOCIATES
PEORIA, ILLINOIS**

**PREPARED
FOR**

**Mr. Ed Sutkowski
Sutkowski & Rhoads, Ltd.
416 Main Street
Peoria, Illinois 61602**

DATE

July 29, 2010

TELEPHONE

309-673-2131

TESTS * INVESTIGATIONS
ANALYSIS * DESIGN * EVALUATIONS
CONSULTATION * REPORTS * INSPECTIONS
ARBITRATION * EXPERT WITNESS TESTIMONY

SOILS * PORTLAND CEMENT CONCRETE
BITUMINOUS CONCRETE * STEEL
ASPHALT * AGGREGATES * EMULSIONS
POZZOLANIC MATERIALS * LIME

**WHITNEY & ASSOCIATES****INCORPORATED**

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GEOTECHNICAL ENGINEERING
CONSTRUCTION QUALITY CONTROL
SUBSURFACE EXPLORATIONS
ENVIRONMENTAL INVESTIGATIONS

MONITORING WELL INSTALLATIONS
BUILT-UP ROOF INVESTIGATIONS
WELDER CERTIFICATIONS
INSURANCE INVESTIGATIONS

July 29, 2010

Mr. Ed Sutkowski
Sutkowski & Rhoads, Ltd.
416 Main Street
Peoria, Illinois 61602

Re: Subsurface Exploration and Site
Development Recommendations
The Townhouses of Williamsburg
Peoria, Illinois

Dear Mr. Sutkowski:

Pursuant to your request, our geotechnical engineering firm has performed a subsurface soils and ground water investigation in conjunction with an evaluation of these subsurface conditions for the above referenced project.

The results of our foundation investigation and evaluation indicate that a conventional reinforced concrete spread foundation system is appropriate for support of the proposed site development. Few, if any, excavation or construction problems are anticipated at the proposed site as a result of the subsurface soil and ground water conditions, providing all of the recommendations presented in this report are satisfied.

If any questions or comments arise in regard to this foundation engineering report, or if any additional information is desired, please do not hesitate to contact us at your convenience.

Respectfully submitted,
WHITNEY & ASSOCIATES



JRK:rma
Enclosures

(By) 
James R. Krusemark, P.E.

WHITNEY & ASSOCIATES
PEORIA, ILLINOIS

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INTRODUCTION

This geotechnical engineering report presents a summary of the results of a subsurface soils and ground water investigation performed at the site for the proposed Townhouses of Williamsburg in Peoria, Illinois. Included in this report are the results of our field and laboratory tests as well as a summary of the data that was obtained during the investigation. In addition, this engineering report includes our recommendations relevant to the proposed site development, foundation construction and potential construction problems which may occur as a result of either adverse soil and/or ground water conditions present at the proposed site.

SCOPE OF THE INVESTIGATION

This subsurface soils and ground water investigation included the drilling of three (3) exploratory soil test borings for the proposed structures on July 26, 2010, which extended to a depth of twenty-one (21) feet below the existing ground surface. During the drilling and sampling phase of the investigation, tests, visual classifications and analyses of the various soil types encountered were

performed by our personnel and their results were recorded on the enclosed Soil Boring Logs.

The soil samples obtained in the field were returned to our materials testing laboratory where they were further subjected to engineering tests and evaluation. An analysis of the field and laboratory tests was conducted by our geotechnical engineer, and this engineering report was prepared which presents our recommendations and our substantiating data regarding the earthwork operations, foundation construction and site development.

EXISTING SITE AND SUBSURFACE CONDITIONS

At the present time, the proposed building sites exist as undeveloped property located within the southwestern limits of the residential development. In the areas of the exploratory borings, approximately six (6) inches of brown, silty clay loam organic topsoil was noted at the existing surface grades.

No active underground utility lines are known to exist within the limits of the proposed structures which would require relocation or abandonment. Likewise, no active overhead utility lines were noted at the site which would require relocation or removal. These observations by our drill crew personnel must be verified by others prior to the preparation of the final plans and specification documents.

SUBSURFACE SOIL CONDITIONS

As may be observed from the enclosed Soil Boring Logs, cohesive fill materials were encountered in Boring B-1 and B-3 which extended to depths ranging from approximately four (4) to ten (10) feet at the respective locations. These materials were classified as a silty clay with some wood debris in Boring B-1

and silty clay soils with varying amounts of bituminous concrete and concrete in Boring B-3. As the exploratory borings were extended into the subsoils, a thin mantle of apparently native, sandy clay, silty clay and silty clay loam soils were penetrated beneath which preconsolidated glacial till soils were encountered and typically extended in depth until the exploratory borings were discontinued by our drill crew personnel. A seam or pocket of fine-grained sand was however noted between the approximate depths of six (6) to nine (9) feet in the area of Boring B-2.

The consistency of the cohesive fill materials was classified as medium to stiff whereas the native soils ranged from medium to hard. The relative density of the limited cohesionless soils was classified as medium-density. Standard penetration tests, designated as "N " values, ranged from 6 to 22 blows per foot within the soils encountered during the scope of this investigation.

A relatively desirable range of natural moisture contents prevail within the soils encountered at this site. The natural moisture contents of the cohesive fill materials and normally consolidated soils ranged from 17 to 23 percent and would be considered near to slightly above an estimated optimum moisture content range of approximately 16 to 19 percent for the typical soil types encountered. Within the glacial till soils, natural moisture contents ranging from 11 to 16 percent were recorded and these soils would likewise be considered near to slightly above their respective optimum moisture content range of approximately 11 to 13 percent.

GROUND WATER CONDITIONS

It may also be observed from an inspection of the Soil Boring Logs that ground water was not encountered at the site. The ground water levels in the open bore holes were checked after the completion of the drilling operations and after a brief time lapse. These readings and site observations indicate the ground water level appears to exist at a depth beyond the scope of this investigation. Few,

if any, excavation or construction problems are anticipated at the proposed construction site as a result of the ground water conditions due to the fact that the ground water levels appear to exist below the proposed vertical limits of the lower level construction.

DISCUSSIONS

FIELD DRILLING PROCEDURES

The exploratory soil borings were conducted with an ATV-mounted, rotary auger drill rig using eight-inch diameter, hollow-stem, continuous-flight auger attachments. By using these hollow-stem augers, our drill crew was able to retrieve relatively undisturbed soil samples in advance of the auger cutting head as well as determine the approximate depth at which ground water was encountered. Also by using the hollow-stem augers, the depth of water could be obtained upon removal of the augers from the open holes after a time lapse of preferably 24 hours.

FIELD SAMPLING PROCEDURES

Representative soil samples were obtained at approximately two and one-half (2.5) feet intervals throughout each of the soil borings to a depth of 16 feet whereupon five (5) feet intervals were utilized until the borings were discontinued by our drill crew personnel. Standard split-barrel soil samplers (ASTM D1586) were used in the investigation to obtain the soil samples. In addition, the split-barrel samplers were used to determine the number of blows "N" of standard penetration into the subsoils, using a 140-pound, automatic hammer dropping freely 30 inches per stroke. The results of these standard penetration tests indicate a comparative consistency of the soils and thereby provide a basis for estimating the relative shear strength and compressibility characteristics of the soil profile components.

LABORATORY TESTING PROCEDURES

The representative cohesive soil samples obtained during the field investigation were tested in unconfined compression with the aid of a calibrated compression testing machine to determine their relative shear strength characteristics. A hand penetrometer was also used to assist our soil mechanics engineer in determining the relative consistency of the soils encountered at the various soil strata. Natural moisture content and dry density tests were also conducted on the representative soil samples obtained. The results of all of the field and laboratory tests are shown on the enclosed Soil Boring Logs included in the Appendix of this report. All tests were conducted in accordance with current ASTM specifications and procedures.

SOIL CLASSIFICATION

The United States Bureau of Soils and Chemistry Classification System was used to describe the soils encountered in the various soil borings. The soils were visually classified in the field and further verification or modification of these classifications were made in the laboratory. The soils encountered in the borings have been described in accordance with a triangular textural classification chart, which has been prepared by the Bureau. Also included in the Appendix of this report is a Soil Mechanics Classification System sheet which will aid in clarifying the descriptions of the various soils.

The enclosed Soil Boring Logs provide descriptions of the subsurface conditions at the exploratory boring locations and variations from these conditions may be encountered throughout the site. The lines of stratification indicated on the Soil Boring Logs represent the approximate boundaries of the soil types although the transition between the materials may be gradual.

SOIL BORING LOCATIONS AND ELEVATIONS

The locations of the exploratory soil borings with respect to the proposed structures were established by Whitney & Associates personnel from project information provided by personnel at Austin Engineering Company as well as Mr. Sutkowski. A Plot Plan sheet illustrating the locations of the exploratory soil borings has been included in the Appendix of this report. The approximate ground surface elevations of the borings, as indicated on the Soil Boring Logs, have been referenced to the U.S.G.S. datum from topographical information obtained at the proposed site. Corresponding depths below the existing ground surface have been depicted on the Soil Boring Logs.

DESIGN CONSIDERATIONS

A few preliminary design parameters relating to the type of structures were known at the time of the writing of this engineering report. It is our understanding that the proposed site development is to include the construction of two (2), single-story wood-frame structures. Lower level elevations of 702.0 and 703.0 have been indicated for the proposed townhouses with walkout levels at the western limits of these structures. Conventional, reinforced concrete spread foundations are recommended for support of the proposed structures.

Based on the results of this subsurface investigation and evaluation, the subsurface conditions encountered at this site should present few, if any, construction problems due to the anticipated foundation depths at the lower level, walkout at the rear of the proposed townhouses. Should any unconsolidated or deleterious fill materials be encountered at the proposed foundation elevations, it is

recommended that these materials be removed and replaced with engineered structural fills to provide adequate support for the proposed structures.

RECOMMENDATIONS

The following recommendations are made in regard to the proposed site and foundation work. These recommendations are based on the data which was obtained in the subsurface investigation and the laboratory tests which were conducted on select representative soil samples.

EARTHWORK OPERATIONS

The contractor shall be responsible for constructing stable, temporary excavations and should slope or bench the lower level excavations as required to maintain stability of the excavation sides. Materials removed from the excavation should not be stockpiled immediately adjacent to the excavation as the imposed load could cause a failure of the excavation walls. It is also essential that no loosely placed soils are deposited on the adjacent slope which could jeopardize the integrity of this slope. We are providing this information solely as a service for our client and under no circumstances should it be interpreted to indicate that Whitney & Associates is assuming any responsibility for construction site safety or the contractor's activities.

Around all foundations within the confines of the structures, it is recommended that cohesionless, sands and gravels only be used to insure that all voids are filled and adequate bearing for the slab-on-grade construction is accomplished. Any loose debris or water must be removed prior to placement of the backfill materials. Where excavations are made for pipes, conduits, etc.

beneath the concrete slabs-on-grade, care should be exercised to insure these trenches are backfilled with cohesionless sands and gravels, and adequately compacted to 98 percent of standard Proctor maximum dry density (ASTM D-698).

It is recommended that a four (4)-inch minimum blanket of free-draining aggregates exist beneath all lower level slab-on-grade floors and again are compacted to 98 percent of standard Proctor maximum dry density (ASTM D-698). The use of a perforated drain tile gravity collection system combined with granular filter media is also recommended beyond the limits of all lower level areas to collect and discharge subsurface water accumulations, preferably by gravity discharge. Waterproofing of the exterior walls is also recommended for the lower level areas.

All downspouts which serve to collect runoff water from the roof areas must be directed away from the foundation walls at all times. Backfilling of the lower level foundation walls with compacted, soils is recommended as soon as the walls have achieved adequate strength.

Positive surface water management practices must be established at this building site which includes, but is not limited to, the diversion of all surface waters away from the structures at all times in the future. It is imperative that no waters be allowed to impound adjacent to any foundation walls or systems. This requirement of design must be satisfied at all times both during construction as well as upon completion of the project.

FOUNDATION DESIGN INFORMATION

It is recommended that the proposed Townhouses at Williamsburg in Peoria, Illinois, be supported on a conventional, reinforced concrete spread foundation system established on the native soils or acceptable, cohesive fill

materials. It is further recommended that a maximum NET Allowable Soil Bearing Pressure of 2000 pounds per square foot be utilized for the spread foundations established on these soils. Removal of all soils disturbed during the foundation excavation as well as any substantial ground water accumulations will be required prior to the reinforcing steel and concrete placement.

Should any unconsolidated or deleterious fill materials be encountered at the proposed foundation elevations, it is recommended that these materials be removed and are replaced with engineered structural fills. It is further recommended that these structural fills consist of CA/CM-6 gravel or recycled aggregates which are to be placed in eight (8) inch, maximum thick layers and compacted to 98 percent of standard Proctor maximum dry density (ASTM D-698).

The weight of the concrete in the foundations and the depth of surcharge below the existing ground surface have been taken into consideration and compensated for in the bearing value specified. The bearing pressure recommended is a net pressure in that it reflects the bearing capacities of the soils at the depths specified with the approximate factors of safety included.

Due to some variation in the composition and bearing capacity of the soils encountered at the site, it is recommended that personnel from our geotechnical engineering firm be retained during construction of the spread foundation systems to perform in-situ soil bearing tests to confirm the proposed foundation design in conjunction with compaction testing of the engineered structural fills.

A preliminary estimate of the potential settlements for the recommended concrete foundations has been made by our geotechnical engineer and it has been estimated that total settlement should not exceed one (1.0) inch for

the spread foundation system. Differential settlements of less than one-half (0.5) of an inch may be anticipated for the spread foundations provided that all requirements as set forth in this report are satisfied. It should be reiterated however that the site development recommendations as specified in this report must be satisfied and are important from the standpoint of curtailing settlement of the proposed spread foundations and concrete floor slabs-on-grade.

SUMMARY

A subsurface exploration and an evaluation of the soil and ground water conditions have been conducted at the site for the proposed Townhouses of Williamsburg in Peoria, Illinois.

Foundation design and site development criteria has been recommended and potential design and construction problems have been discussed in some detail. The exploration and analyses of the foundation conditions presented in this engineering report are considered of sufficient detail and scope to form a reasonable basis for design evaluation. The observations and comments submitted within this geotechnical engineering report are based upon the subsurface soil and ground water information which was obtained as well as the preliminary design details which have been furnished by the Owner's representative.

Any revisions in the plans for the proposed site development from those enumerated in this engineering report should be brought to the attention of our geotechnical engineer so that it can be determined if changes or alterations in the foundation recommendations will be required and additional evaluations reviewed or proposed. Should deviations from the noted subsurface conditions be

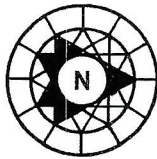
encountered during construction, it is mandatory that they be brought to the attention of our personnel for further evaluation. On-site observation and testing by personnel from our geotechnical engineering firm is also considered essential to verify and substantiate the design criteria set forth in this geotechnical engineering report.

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PROJECT
The Townhouses Of
Williamsburg

PROJECT LOCATION
Peoria, Illinois

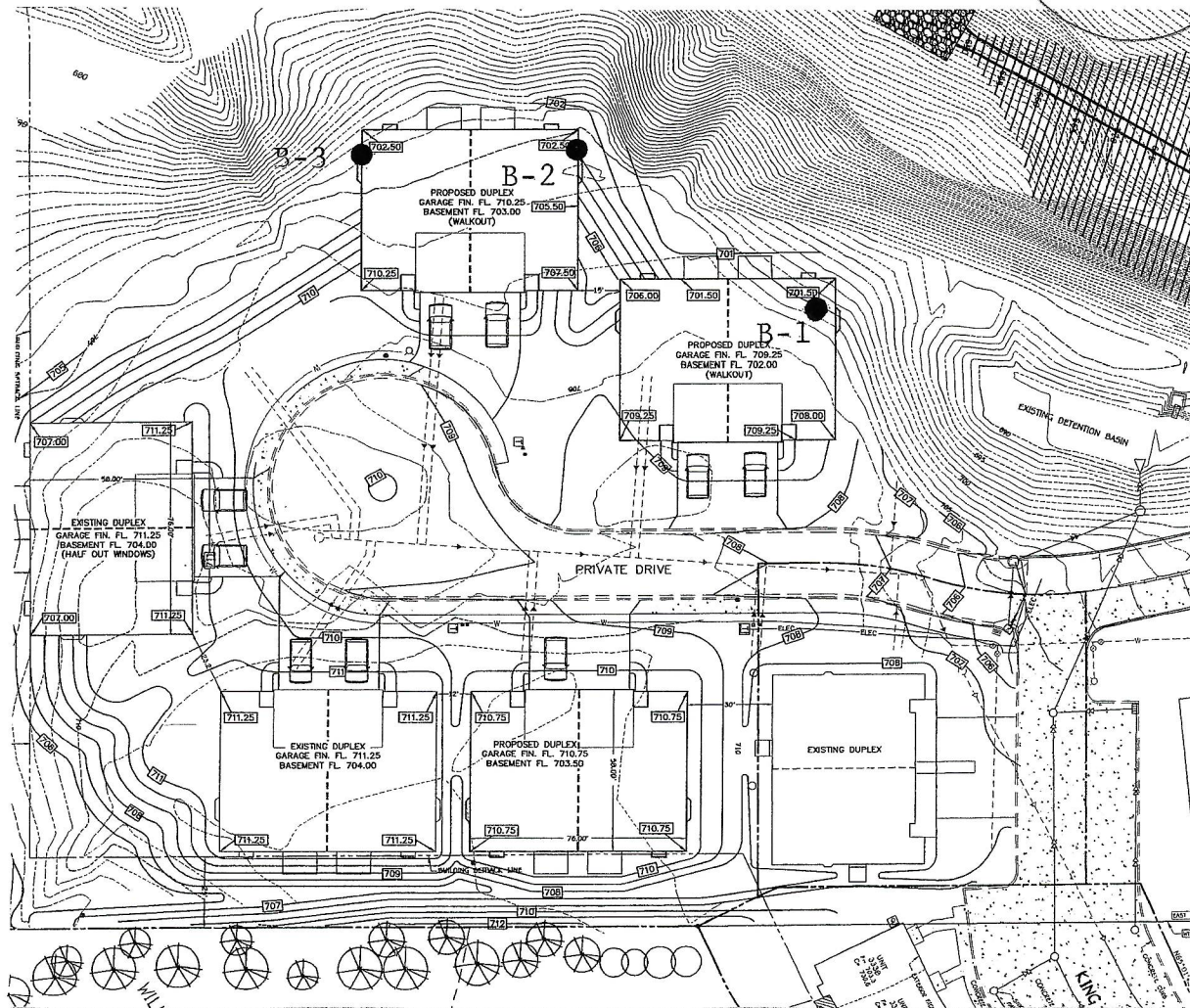
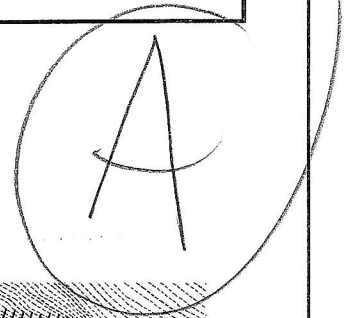


DATE July 31, 2010

W. & A. FILE NO. 5370

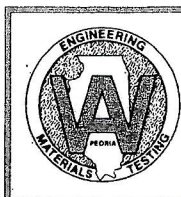
SCALE None

PLOT PLAN



● Exploratory Soil Boring Locations

(Site Plan Provided by Austin Engineering Company)



WHITNEY & ASSOCIATES

INCORPORATED

2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-01

DATE 07-26-10

W. & A. FILE NO. 5370

SHEET 1 OF 3

PROJECT THE TOWNHOUSES OF WILLIAMSBURG

BORING LOCATION See Plot Plan Sheet

BORING TYPE Hollow Stem Auger

SOIL CLASSIFICATION SYSTEM U.S.B.S.C.

GROUND SURFACE ELEVATION 705.2

BORING DISCONTINUED AT ELEVATION 684.2

LOCATION Peoria, Illinois

DRILLED BY Feh

WEATHER CONDITIONS Partly Cloudy & Mild

SEEPAGE WATER ENCOUNTERED AT ELEVATION None

GROUND WATER ELEVATION AT HRS. -

GROUND WATER ELEVATION AT COMPLETION None

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Q _p	Q _u	D _d	M _c
Brown SILTY CLAY LOAM Organic Topsoil	6"						
Medium, Brown SILTY CLAY With Wood Debris (Fill)							
		SS	6	2.0	-	-	21
Medium, Brown SANDY CLAY With Some Coarse-Grained Sand And Fine-Grained Gravel	4						
		SS	6	1.0	0.9	103	18
Medium, Brown, Weathered GLACIAL SILTY CLAY TILL	8	SS	7	1.1	0.9	117	16
Stiff, Brown, Weathered GLACIAL SILTY CLAY TILL							
		SS	10	1.8	1.4	119	14
	12						
Very Stiff, Brown, Weathered GLACIAL SILTY CLAY TILL		SS	18	2.7	2.5	120	13
Stiff, Brown, Weathered GLACIAL SILTY CLAY TILL							
	16	SS	13	2.1	1.8	119	14
Very Stiff, Gray, Unweathered GLACIAL SILTY CLAY TILL	20	SS	10	3.0	2.8	122	12
EXPLORATORY BORING DISCONTINUED							
	24						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER

FALLING 30 INCHES

SS - SPLIT SPOON SAMPLE

ST - SHELBY TUBE SAMPLE

Q_p - CALIBRATED PENETROMETER READING - T.S.F.

Q_u - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.

D_d - NATURAL DRY DENSITY - P.C.F.

M_c - NATURAL MOISTURE CONTENT - %

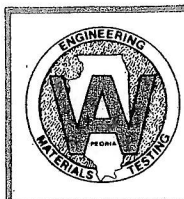
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BORING NO. B-02

DATE 07-26-10

W. & A. FILE NO. 5370

SHEET 2 OF 3



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INCORPORATED

2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

PROJECT THE TOWNHOUSES OF WILLIAMSBURG

LOCATION Peoria, Illinois

BORING LOCATION See Plot Plan Sheet

DRILLED BY FehI

BORING TYPE Hollow Stem Auger

WEATHER CONDITIONS Partly Cloudy & Mild

SOIL CLASSIFICATION SYSTEM U.S.B.S.C.

SEEPAGE WATER ENCOUNTERED AT ELEVATION None

GROUND SURFACE ELEVATION 704.9

GROUND WATER ELEVATION AT 1 HRS. None

BORING DISCONTINUED AT ELEVATION 683.9

GROUND WATER ELEVATION AT COMPLETION None

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Q _p	Q _u	D _d	M _c
Brown SILTY CLAY LOAM Organic Topsoil	6"						
Hard, Light Brown And Brown SILTY CLAY							
		SS	16	4.5+	4.4	106	17
Very Stiff, Brown, Weathered GLACIAL SILTY CLAY TILL	4						
		SS	15	3.9	3.2	118	14
Medium-Density, Brown, Fine-Grained SAND							
	8	SS	13	-	-	-	6
Very Stiff, Brown, Weathered GLACIAL SANDY CLAY TILL							
		SS	11	2.5	2.2	122	11
Very Stiff, Brown, Weathered GLACIAL SILTY CLAY TILL	12						
		SS	20	3.2	3.2	121	12
Very Stiff, Gray, Unweathered GLACIAL SILTY CLAY TILL							
	16	SS	18	2.3	2.2	120	13
	20	SS	17	2.1	2.1	120	13
EXPLORATORY BORING DISCONTINUED							
	24						

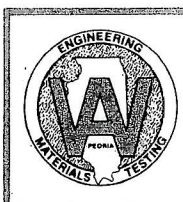
N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER

FALLING 30 INCHES

SS - SPLIT SPOON SAMPLE

ST - SHELBY TUBE SAMPLE

Q_p - CALIBRATED PENETROMETER READING - T.S.F.Q_u - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.D_d - NATURAL DRY DENSITY - P.C.F.M_c - NATURAL MOISTURE CONTENT - %WHITNEY & ASSOCIATES
PEORIA, ILLINOIS



WHITNEY & ASSOCIATES

INCORPORATED

2406 West Nebraska Avenue
PEORIA, ILLINOIS 61604

BORING LOG

BORING NO. B-03

DATE 07-26-10

W. & A. FILE NO. 5370

SHEET 3 OF 3

PROJECT THE TOWNHOUSES OF WILLIAMSBURG

LOCATION Peoria, Illinois

BORING LOCATION See Plot Plan Sheet

DRILLED BY Fehl

BORING TYPE Hollow Stem Auger

WEATHER CONDITIONS Partly Cloudy & Mild

SOIL CLASSIFICATION SYSTEM U.S.B.S.C.

SEEPAGE WATER ENCOUNTERED AT ELEVATION None

GROUND SURFACE ELEVATION 706.8

GROUND WATER ELEVATION AT 2 HRS. None

BORING DISCONTINUED AT ELEVATION 685.8

GROUND WATER ELEVATION AT COMPLETION None

DESCRIPTION	DEPTH IN FEET	SAMPLE TYPE	N	Q _p	Q _u	D _d	M _c
Brown SILTY CLAY LOAM Organic Topsoil With Some Fine-Grained Gravel	6"						
Medium, Brown SILTY CLAY With Considerable Bituminous Concrete (Fill)		SS	7	1.1	0.9	94	23
CONCRETE	4						
Stiff, Brown SILTY CLAY With Some Concrete Fragments (Fill)		SS	11	2.0	-	-	18
Stiff, Brown And Gray-Brown SILTY CLAY (Fill)	8	SS	8	1.5	1.4	96	23
Stiff, Light Brown And Gray-Brown SILTY CLAY LOAM (Possible Fill)		SS	7	1.4	1.2	98	22
Very Stiff, Brown, Weathered GLACIAL SILTY CLAY TILL	12						
		SS	17	3.2	2.9	119	13
	16	SS	18	3.8	3.6	120	12
Hard, Brown, Weathered GLACIAL SILTY CLAY TILL	20						
		SS	22	4.5	4.3	122	12
EXPLORATORY BORING DISCONTINUED							
	24						

N - BLOWS DELIVERED PER FOOT BY A 140 LB. HAMMER
FALLING 30 INCHES

SS - SPLIT SPOON SAMPLE

ST - SHELBY TUBE SAMPLE

Q_p - CALIBRATED PENETROMETER READING - T.S.F.
Q_u - UNCONFINED COMPRESSIVE STRENGTH - T.S.F.

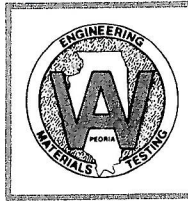
D_d - NATURAL DRY DENSITY - P.C.F.

M_c - NATURAL MOISTURE CONTENT - %

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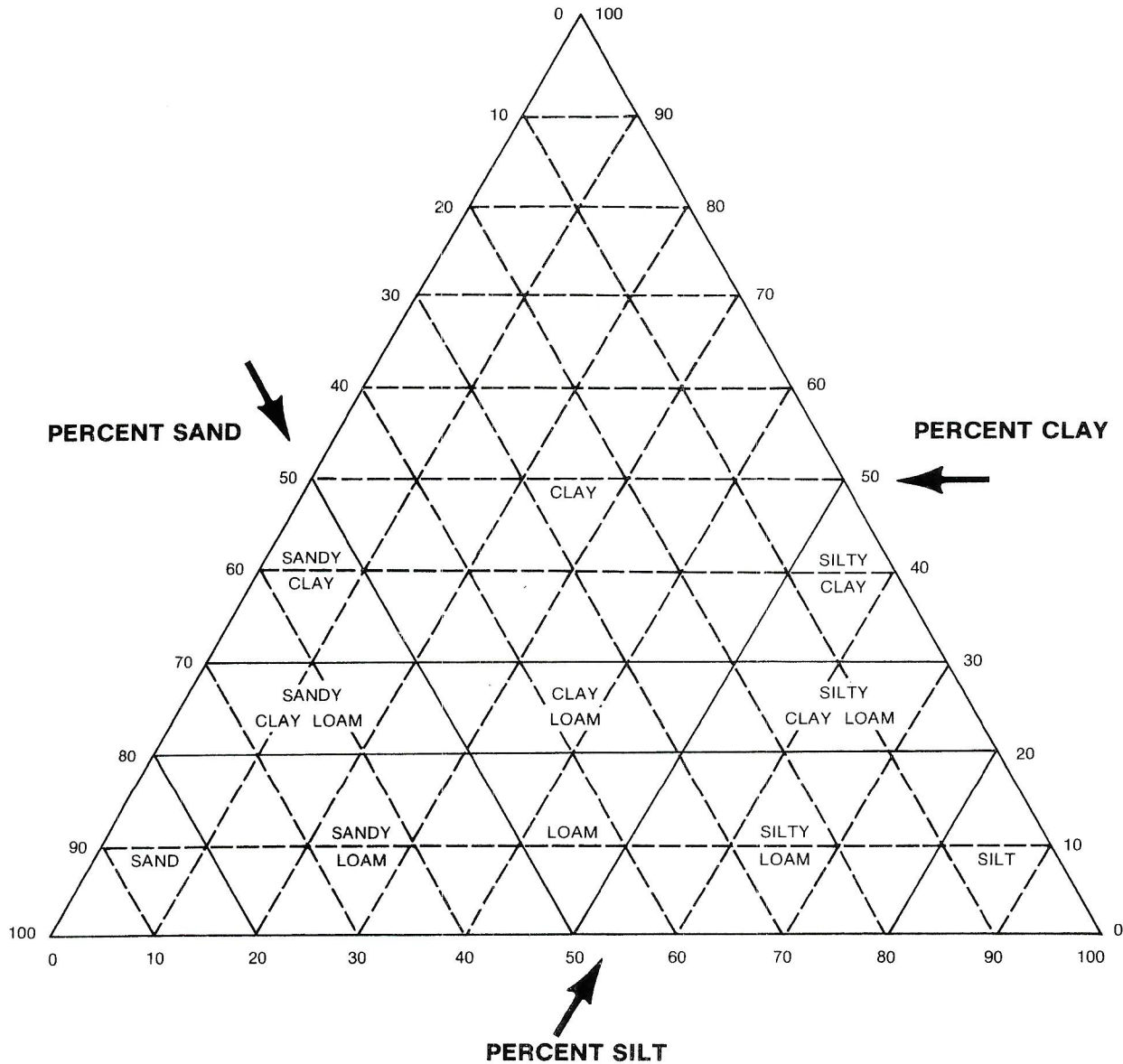
WHITNEY & ASSOCIATES INCORPORATED

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PEORIA, ILLINOIS 61604

SPECIALISTS IN

SOILS - PORTLAND CEMENT CONCRETE
STEEL - BITUMINOUS CONCRETE
CONSTRUCTION MATERIALS
AGGREGATES - ASPHALT - POZ-O-PAC

SOILS AND GRAVEL SURVEYS
MATERIALS QUALITY CONTROL
SOIL MECHANICS AND
FOUNDATION ENGINEERING
DRILLING - CORING - TESTING



TRIANGULAR TEXTURAL CLASSIFICATION CHART

DEVELOPED BY
UNITED STATES BUREAU OF SOILS AND CHEMISTRY
(U.S.B.S.C.)

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INSURANCE INVESTIGATIONS

SOIL MECHANICS CLASSIFICATION SYSTEMS**TEXTURAL CLASSIFICATION**

DESCRIPTION	SIZE
BOULDERS	LARGER THAN 3.0 IN.
COARSE GRAVEL	0.75 IN. — 3.0 IN.
FINE GRAVEL	NO. 4 SIEVE — 0.75 IN.
COARSE SAND	NO. 10 SIEVE — NO. 4 SIEVE
MEDIUM SAND	NO. 40 SIEVE — NO. 10 SIEVE
FINE SAND	NO. 200 SIEVE — NO. 40 SIEVE
SILT	LESS THAN NO. 200 SIEVE — NONPLASTIC
CLAY	LESS THAN NO. 200 SIEVE — PLASTIC

QUANTITY CLASSIFICATION

DESCRIPTION	PERCENT
TRACE	0 - 5
SMALL AMOUNT	5 - 10
SOME	10 - 15
CONSIDERABLE	15 - 20
SUBORDINATE TEXTURAL CLASSIFICATION	OVER 20

RELATIVE DENSITY CLASSIFICATION — COHESIONLESS SOILS

N. BLOWS / FT.	RELATIVE DENSITY
0 - 4	VERY LOOSE
4 - 10	LOOSE
10 - 30	MEDIUM
30 - 50	DENSE
OVER 50	VERY DENSE

*** CONSISTENCY CLASSIFICATION — COHESIVE SOILS**

N. BLOWS / FT.	CONSISTENCY	Q _u , TONS / SQ. FT.
0 - 2	VERY SOFT	0.00 - 0.25
2 - 4	SOFT	0.25 - 0.50
4 - 8	MEDIUM	0.50 - 1.00
8 - 15	STIFF	1.00 - 2.00
15 - 30	VERY STIFF	2.00 - 4.00
OVER 30	HARD	OVER - 4.00

*** NOTE:**

THIS CLASSIFICATION SYSTEM IS TO BE USED SOLELY AS A GUIDE AND IS NOT ADEQUATE FOR PURPOSES OF DESIGN.

WHITNEY & ASSOCIATES GENERAL CONDITIONS (GEOTECHNICAL AND CONSTRUCTION SERVICES)

THESE STANDARD TERMS AND CONDITIONS SHALL CONTINUE IN FORCE AND EFFECT DURING AND AFTER THE COMPLETION OF WHITNEY & ASSOCIATES EMPLOYMENT AND SHALL CONTROL ANY CONFLICTING TERM OR CONDITION UNLESS WHITNEY & ASSOCIATES AGREES OTHERWISE IN WRITING.

1. PARTIES AND SCOPE OF WORK. "This Agreement" consists of Whitney & Associates (W&A) proposal, W&A's Schedule of Fees and Services, client's written acceptance thereof, if accepted by W&A, and these General Conditions. The terms contained in these General Conditions are intended to prevail over any conflicting terms in this Agreement. "Client" refers to the person or entity ordering the work to be done or professional services to be rendered by Whitney & Associates (except where distinction is necessary, either work or professional services are referred to as "services" herein). If client is ordering the services on behalf of another, client represents and warrants that client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "client" shall also include the principal for whom the services are being performed. Prices quoted and charged by W&A for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by client are adequate and sufficient for client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom the client transmits any report prepared by W&A. Unless otherwise expressly assigned in writing, W&A shall have no duty to any third party, and in no event shall W&A have any duty or obligation other than those duties and obligations expressly set forth in this Agreement. Ordering services from W&A shall constitute acceptance of W&A's proposal and these General Conditions. In addition, Client's acceptance of W&A's proposal and these General Conditions may be indicated by Client signing the proposal, and a facsimile copy or an electronic signature by Client shall be considered as an original signature by Client.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If W&A is required to delay any part of its services to accommodate the requests or requirements of client, regulatory agencies, or other parties, or due to any cause beyond its reasonable control, client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: Client will arrange and provide such access to the site as is necessary for W&A to perform its services. W&A shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, W&A has not included in its fee the cost of restoration of damage which may occur. If client desires or requires W&A to restore the site to its former condition, W&A will, upon written request, perform such additional work as is necessary to do so and client agrees to pay to W&A the cost thereof plus W&A's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that client has advised W&A of any known or suspected hazardous materials, utility lines and underground structures at any site at which W&A is to perform services under this Agreement.

5. DISCOVERY OF POLLUTANTS: W&A services shall not include investigation for hazardous substances, materials or wastes or petroleum products. Hazardous materials, substances or wastes (all cumulatively referred to herein as "hazardous substances") includes, but is not limited to, any substance, waste, pollutant or contaminant, in whatever form, now or hereafter included with such terms under any federal, state or local statute, ordinance, code, rule or regulation now existing or hereinafter enacted or amended. W&A shall not be liable for any contamination as a result of hazardous substances which may be encountered. In the event that hazardous substances are suspected by W&A, W&A's sole duty shall be to notify client and W&A has no duty to identify or attempt to identify within the project area.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, W&A will report its test results and observations as more specifically set forth elsewhere in this Agreement. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and W&A recommendations. No claims for loss, damage or injury shall be brought against W&A unless all tests and inspections have been so performed and unless W&A recommendations have been followed.

W&A services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. W&A services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. W&A services or failure to perform same shall not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. W&A services shall not include any responsibility or liability for the owner and/or contractor's site safety and/or operations of construction, including surface water management practices. "Contractor" as used herein shall include the general contractor, subcontractors, suppliers, architects, engineers and construction managers.

7. LIMITATIONS OF PROCEDURES, EQUIPMENT AND TESTS: Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by W&A unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. The test report documents shall not be considered certification or guarantee that certain conditions have been met. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. W&A shall not be liable for diminution of value wherein the results of the investigation and evaluation may result in decreased value of a property or project. Unless otherwise agreed in writing, the procedures employed by W&A are not designed to detect intentional concealment or misrepresentation of fact by others. W&A services are being performed solely for client's benefit and no contractor, subcontractor, supplier, fabricator, manufacturer, tenant, occupant, consultant, or other third party shall have any claim against W&A as a result of its services.

8. SAMPLE DISPOSAL: Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of W&A report.

9. TERMINATION: This Agreement may be terminated by either party upon seven days prior written notice. In the event of termination, W&A shall be compensated by client for all services performed up to and including the termination date, including reimbursable expenses.

10. PAYMENT: The firm or individual engaging W&A is responsible for payment of charges unless W&A is notified in writing, prior to the time that the charges are incurred, that the engagement is on behalf of another party. Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within thirty (30) days at the rate of eighteen (18%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and W&A costs of collection of such accounts, including court costs and reasonable attorney's fees.

11. STANDARD OF CARE: W&A professional services will be performed, its findings obtained and its reports prepared in accordance with this Agreement and with generally accepted principles and practices. In performing its professional services, W&A will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. W&A may rely upon information supplied by the client engaging W&A, or the contractors or consultants involved, or information available from generally accepted reputable sources, without independent verification. In performing physical work in pursuit of its professional services, W&A will use that degree of care and skill ordinarily used under similar circumstances. This statement is in lieu of all other warranties or representations, either express or implied. Statements made in W&A reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

12. LIMITATION OF LIABILITY: Should W&A or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, client, all parties claiming through client and all parties claiming to have in any way relied upon W&A services or work agree that the maximum aggregate amount of damages for which W&A, its officers, employees and agents shall be liable is limited to \$10,000 or the total amount of the fee paid to W&A for its services performed with respect to the project whichever amount is greater.

In the event client is unwilling or unable to limit the damages for which W&A may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of client received within five (5) days of client's acceptance of W&A's proposal together with payment of an additional fee in the amount of 5% of W&A's estimated cost for its services (to be adjusted to 5% of the amount actually billed by W&A for its services on the project at time of completion), the limit damages shall be increased to \$50,000 or the amount of W&A's fee whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.

13. INDEMNITY: Subject to the provisions set forth herein, W&A and client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorney's fees arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees. In the event both are negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. W&A and client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement.

14. SUBPOENAS: W&A employees shall not be retained as expert witnesses except by separate written agreement. Client agrees to pay W&A pursuant to W&A's then current Fee Schedule for any W&A employee(s) subpoenaed by any party as an occurrence witness as a result of W&A's services.

15. OTHER AGREEMENTS: W&A shall not be bound by any provision or agreement requiring or providing for arbitration of disputes or controversies arising out of this Agreement or any provision wherein W&A waives any rights to a mechanics lien, or any provision that conditions W&A's right to receive payment for its services upon payment to client by any third party. These General Conditions are notice, where required, that W&A shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Client acknowledges that no representations, warranties, undertakings or promises have been made other than and except those expressly contained herein. All understandings and agreements heretofore had among the parties respecting this transaction, are merged in this Agreement. Unless expressly accepted by W&A in writing prior to delivery of W&A's services, client shall not add any conditions other than those contained in this Agreement. W&A's offer to provide services is conditioned on client's acceptance of all the terms and conditions set forth in these General Conditions without alteration or modification of any kind. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State Of Illinois. The parties hereto consent to jurisdiction and venue in an appropriate Illinois State Court in and for the County of Peoria, Peoria, Illinois, or the Federal District Court for The Mid-Central District of Illinois. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.

