MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners • Surveyors • Landscape Architects

30 Freneau Avenue, Route 79, Matawan, NJ 07747
Tel: 732.583.5900 • Fax: 732.583.6619
www.maserconsulting.com

REPORT OF
PRELIMINARY SUBSURFACE EXPLORATION
FOUNDATION EVALUATION

TWO RIVER THEATRE

BLOCK 35, LOTS 4-7
BLOCK 36, LOT 8
BLOCK 37, LOTS 3.02, 3.02,4-7, 10 & 10.01

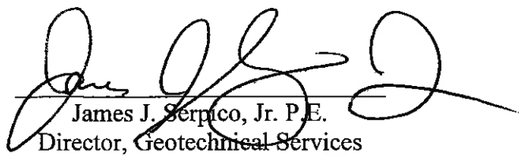
BOROUGH OF RED BANK
MONMOUTH COUNTY, NEW JERSEY

SUBMITTED TO:

MR. BEN LUCARELLI
VERSAILLES REALTY SERVICES
P.O. BOX 428
155 MARKHAM PLACE
LITTLE SILVER, NJ 0739

SUBMITTED BY:

MASER CONSULTING P.A.



James J. Serpico, Jr. P.E.
Director, Geotechnical Services

January 8, 2003
Project No. 01-0184A

REPORT OF
PRELIMINARY SUBSURFACE EXPLORATION
FOUNDATION EVALUATION

TWO RIVER THEATRE

BLOCK 35, LOTS 4-7
BLOCK 36, LOT 8
BLOCK 37, LOTS 3.02, 3.02,4-7, 10 & 10.01

BOROUGH OF RED BANK
MONMOUTH COUNTY, NEW JERSEY

TABLE OF CONTENTS

1. INTRODUCTION:

This report has been authorized by Mr. Ben Lucarelli and presents the results of our preliminary subsurface exploration and geotechnical evaluation of the site with respect to foundation support for the proposed Two River Theater.

Maser Consulting, P.A. understands that the proposed building is to be a two-story steel frame structure with a total plan area of approximately 22,600 square feet supported on a conventional shallow foundation system. The project site is known as Block 35, Lots 4-7, Block 36, Lot 8 and Block 37, Lots 3.02, 3.02, 4-7, 10 & 10.01 in The Borough of Red Bank, Monmouth County, New Jersey.

Preliminary geotechnical recommendations provided in this report are based on review of published data, accepted engineering practice, field observations, preliminary subsurface explorations, and laboratory testing. In accordance with our proposal, Maser Consulting, P.A. has evaluated the subsurface conditions at the site, and provides an evaluation of the allowable bearing capacity, earthwork operations; including groundwater impacts, management of unsuitable soils, suitability of on-site soils for use as controlled fill, and placement of controlled fill materials.

2. SCOPE OF SERVICES:

In order to adequately define the preliminary subsurface conditions within the influence of the proposed construction, and to subsequently provide preliminary geotechnical consultation regarding the foundation requirements, we performed the following scope of services:

a) Retained a drilling contractor to perform the subsurface exploration program requested;

b) Provided full-time technical observation of the work of the drilling contractor;

c) Obtained representative soil samples encountered within the zone of influence of the proposed construction;

d) Evaluated and prepared test boring logs showing the types of soils encountered, elevation of encountered groundwater and evaluation of the potential seasonal high groundwater level at each test location;

e) Prepared a Foundation Evaluation Report, provided herein, presenting the results of our preliminary subsurface exploration, engineering evaluation, and subsequent recommendations.

3. SUBSURFACE EXPLORATION:

The subsurface conditions at the site were explored on August 20, 2002 and December 21, 2002 through the advancement of a total of five (5) test borings in the area of the proposed building. Test borings were performed at approximately the four building corners and one within the building footprint. The borings were located in the field using available topographic basemaps and measurements from existing site features.

The borings were each advanced to a maximum completed depth of 27 feet below existing grade by Granese Drilling, Inc. Test borings were advanced using standard hollow stem augers and split spoon sampling in accordance with ASTM D-1586 (Standard Method for Penetration Test and Split-Barrel Sampling of Soils). Sampling was performed continuously from the ground surface to a depth of 12 feet then at five foot intervals. Groundwater measurements were taken in the boreholes upon completion of each test boring.

All borings were advanced under the full-time technical observation of Maser Consulting P.A. All soils encountered were classified in the field in accordance with the Burmister Soil Classification System. Representative soil samples of the strata encountered were collected and returned to our laboratory facilities for further evaluation and analyses. The boring locations are presented on the Test Boring Location Plan, Drawing No. 1. Details pertaining to the subsurface conditions encountered are presented on the Boring Logs in Appendix A.

4. SUBSURFACE CONDITIONS

The area of the proposed building construction is located in an area that is currently used for parking and is partially paved, partially stoned and a small area has concrete slabs from a past structure that was demolished sometime in the past. Asphalt thickness was minimal and ranged from one (1) to three (3) inches. The concrete slab was a lean concrete mix which was easily drilled and had a thickness of about four (4) inches.

Immediately underlying the pavement/stone/concrete material there generally exists orange, brown and reddish brown coarse to fine and medium to fine grained sands with varying percentages of silt and clayey silt in the soil matrix. Standard penetration test (SPT) "N" values ranged from five (5) to 20 blows per foot (blows) throughout the strata. Test boring No. TB-3 encountered brick fragments from a depth of between six (6) to ten (10) feet below grade. These brick fragments may be the remains of past foundation/basement structures in the area.

The only area where loose soils were encountered was in the area of test boring TB-5. In this area SPT blow counts were low until a depth of 14 feet below grade. The loose nature of the soils in this area may be due to past excavations in the vicinity and/or impacted by the loading scale which was directly adjacent to the test boring location.

Groundwater levels were encountered in Test boring Nos. TB-2 through TB-5 during the drilling program. Test boring TB-1 did not advance deep enough due to being terminated by the previous property owner. Groundwater measurements ranged from 15 to 18 feet below grade and is consistent with ground water levels collected by other professionals at the site. Groundwater information gathered during Maser's preliminary subsurface exploration are presented on the Test Boring Logs in Appendix A. It should be noted that groundwater levels vary greatly based on precipitation, time of the year and other intangible factors.

5. DISCUSSION AND RECOMMENDATIONS:

The following discussion and recommendations are based upon our preliminary engineering evaluation of the test boring exploration program. Consistent with the above information, the site is considered suitable for the proposed construction. Specific site recommendations are provided as follows.

5.1. Site Preparation

Bituminous pavement and concrete must be excavated and removed from the site. All trees, shrubs and other vegetation, must be cleared from the building lot with stumps and roots grubbed from beneath the site surface. All stripped areas are to be proofrolled through three or more passes of a smooth drum vibratory roller with a static weight of at least 10 tons. Areas that "weave" or "pump" under the passing roller should be considered unstable. All unstable materials within building or pavement areas should be undercut and stabilized through backfilling the excavated area with well compacted sand, gravel, or a sand and gravel mixture. The proofrolling will also densify upper granular deposits which are to remain.

5.2. Foundations

Based upon review of the test boring data, the site lies within the upper portion of the Coastal Plain deposits. Bedrock in the coastal plain region is well in excess of 200 feet. In accordance with the Building Officials Code Administrators (BOCA) Code Section 1610.3.1 a Soil Profile Type S2 should be referenced for seismic design.

Based on the test boring data, soils encountered at foundation bearing grades are suitable for support of the proposed structure with the exception of soils in the area of test boring TB-5. In this area overexcavation and recompaction of materials will be required to depths up to 16 feet below existing grade.

All footings may be designed for a maximum allowable soil bearing pressure of 3000 pounds per square foot whether they bear directly on natural or recompacted fills. The minimum footing widths for continuous wall footing shall be no less than 2.0 feet. Column foundations should have a nominal dimension of at least 3.5 feet. All footings shall be founded a

minimum of three (3) feet below exterior finished grade. All footing subgrades should be compacted prior to form placement.

As stated previously, the area of TB-5 will require overexcavation and structural backfill placement. The exact limits of the required overexcavation will be a field determination at the time of construction. Interior column footings, if any, in the area of TB-5 will also need to be evaluated during construction.

It should be noted that due to the granular nature of the site subsoils and the close proximity of the new construction adjacent to old, brick structures that excavation may need to be staged or supported during construction to minimize the potential for damage to nearby existing structures. Driven sheeting is not recommended due to the anticipated negative impact of impact or vibratory hammers.

5.3. Reuse of On-Site Soils

Material encountered during building and utility excavation will be suitable for reuse as fills on-site provided they do not contain large quantities of brick, asphalt or concrete fragments which may be at the site due to evidence of past foundation systems near the surface.

5.4. Compaction Requirements

All fills placed for building pads, footings, and roadways are to be structural fill placed in a controlled manner. All structural fills are to be placed in lifts not exceeding twelve (12) inches in thickness and compacted to no less than ninety-five (95) percent of its optimum dry density as determined by ASTM D-1557 for the Modified Proctor Test. Moisture conditions at the time of material placement should be determined by the compaction curves with appropriate moisture content ranges established by the site geotechnical engineer. For non-structural areas, the fill materials are to be placed in lifts less than twelve (12) inches in thickness and compacted to not less than ninety (90) percent of its optimum dry density as determined by ASTM D-1557. This is to minimize post construction settlement. It is recommended that a smooth drum vibratory roller with a static weight of at least 10 tons be used to achieve the desired compaction. Vibration due to compaction operations should be monitored to preclude damage to nearby brick structures.

Structural fill materials must be naturally occurring; non-organic materials comply with the following gradation:

Allowable Gradation Envelope
Type "G" Fill

U.S. Standard Sieve Size	Percent Finer By Weight
2"	100
1"	80-100
3/8"	70-100
No. 10	50-100
No. 30	30-85
No. 60	15-65
No. 200	5-15

6. CLOSING:

Successful construction of the project will require competent field observation of the construction operations. All earthwork, including clearing and grubbing, proofrolling, grading and fill placement, backfill operations and foundation installation should be observed by a engineer cognizant of the recommendations contained herein. We are available to perform construction observation services if requested.

The recommendations contained herein are contingent upon the actual field conditions being consistent with those encountered during our field exploration. Should any variation in the anticipated conditions be encountered or site regrading is proposed, Maser Consulting P.A. should be notified immediately to determine what impact the changed conditions may have upon the presented recommendations.

7. LIMITATIONS:

Services performed by Maser Consulting P.A. during this project have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in the services provided.

Unless specifically indicated to the contrary in this report, the scope of our services was limited only to exploration and evaluation of the geotechnical engineering aspects of the site conditions, and did not include any consideration of potential site pollution or contamination resulting from the presence of chemicals, metals, radioactive elements, etc. This report offers no facts or opinions related to potential pollution/contamination of the site.

PROP. RIGHT-OF-WAY
AREA = 16,877.00 S.F.
= 0.39 ACRES

PROPOSED LOT 2 AREA = 79,680.36 S.F.
= 1.83 ACRES

PROPOSED LOT 1 AREA = 84,115.35 S.F.
= 1.93 ACRES

LOT 8
LOT 8.01
LOT 7
LOT 6
LOT 5
LOT 4
LOT 3.03
LOT 3.02
LOT 3.01
LOT 2
LOT 2.01
LOT 1
LOT 4.01
BLOCK 37

EXIST. BLDG. (OPEN STORAGE)
EXIST. TRASH DUMPSTER
TWO STORY BUILDING
F.F. 31.69
EXIST. BLDG.
EXIST. TRASH CAN COLLECTION AREA
EXIST. TRASH CAN ENCLOSURE
EXIST. GRAVEL TO REMAIN
EXIST. PARKING AREA
EXIST. UNSTRIPED PARKING AREA
8 PARKING STALLS
LOADING AREA
PROPOSED THEATRE
22,615± S.F.
(300 SEATS)
F.F. 34.2±

BURROWS STREET
MONMOUTH STREET
CONSOLIDATED RAIL CORP FORMER

CHAIN LINK FENCE
CONCRETE BLOCK WALL (BROKEN)
CONCRETE WALL
EX. TREES AND BRUSH
EX. TREE
ROOF DRAIN (TYP.)
ROOF DRAIN (TYP.)
REMOVE EXIST. INLET & PIPES AS REQUIRED

"B" INLET #1
TC 35.82
GR 35.15
INV. 32.27

"B" INLET #7
TC 34.97
GR 34.30
INV. 29.47

"B" INLET #8
TC 33.67
GR 33.00
INV. 27.90

"B" INLET #9
TC 32.74
GR 32.07
INV. 27.63

"SPECIAL" "B" INLET #12
TC 32.74
GR 32.07
INV. 27.53

"B" INLET #10
TC 31.77
GR 31.10
INV. 28.04

"B" INLET #11
TC 31.77
GR 31.10
INV. 27.94

"E" INLET #6
GR 33.50
INV. 29.63

YARD INLET #5
GR 32.60
INV. 29.83

YARD INLET #4
GR 32.50
INV. 30.03

YARD INLET #3
GR 32.40
INV. 30.23

DBL. INLET
INV. 27.28

INLET
INV. 27.39

26 L.F. 15" RCP @ 2.00%
174 L.F. 15" RCP @ 2.00%
157 L.F. 15" RCP @ 1.00%
33 L.F. 15" RCP @ 0.28%
CONNECT EXIST 15" PIPE TO PROP. "B" INLET
135 L.F. 15" RCP @ 0.30%
33 L.F. 15" RCP @ 0.30%
32 L.F. 15" RCP @ 0.50%
10 L.F. 12" ADS @ 0.50%
10 L.F. 12" ADS @ 0.50%

TB-1
TB-2
TB-3
TB-4

PROP. 8" SAN. SEWER LATERAL
CONNECT TO EXIST. WATER MAIN
CONNECT TO EXIST. SAN. SEWER
PROP. 4" D.I.P. WATER LATERAL
EXIST. 12" WATER MAIN
EXIST. 4" WATER MAIN
EXIST. GAS MAIN
SANITARY SEWER MAIN

BC 30.92
BC 31.20
BC 31.10

40 0 40 80
SCALE IN FEET
(1"=40')

LEGEND

TB-1 Test Boring Location

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects
State of N.J. Certificate of Authorization: 24GA27986500

MATAWAN OFFICE
Victoria Plaza
30 Freneau Avenue (Route 79)
Matawan, N.J. 07747
Phone (732) 583-5900
Fax (732) 583-6619
E-mail - solutions@maserconsulting.com

TEST BORING LOCATION PLAN
FOR
TWO RIVER THEATER

BOROUGH OF RED BANK MONMOUTH COUNTY NJ

APPENDIX A

TEST BORING LOGS

VISUAL IDENTIFICATION OF SAMPLES
(Burmister Soil Classification System)

I. Definition of Soil Components and Fractions

Material	Symbol	Fraction	Sieve Size	Definition
Boulders	Bldr	-----	9" +	Material retained on 9" sieve.
Cobbles	Cbl	----	3" to 9"	Material passing the 9" sieve and retained on the 3" sieve.
Gravel	G	coarse (c) medium (m) fine (f)	1" to 3" 3/8" to 1" No. 10 to 3/8"	Material passing the 3" sieve and retained on the No. 10 sieve.
Sand	S	coarse (c) medium (m) fine (f)	No. 30 to No. 10 No. 60 to No. 30 No. 200 to No. 60	Material passing the No. 10 sieve and retained on the No. 200 sieve.
Silt	$	---	Passing No. 200 (0.075 mm)	Material passing the No. 200 sieve that is non-plastic in character and exhibits little or no strength when air dried.
Clayey SILT	Cy$	Slight (SL)	1 to 5	Clay - Soil
SILT & CLAY	$ & C	Low (L)	5 to 10	Material passing the No. 200 which can be made to exhibit plasticity and clay qualities within a certain range of moisture content, and which exhibits considerable strength when air-dried.
CLAY & SILT	C & $	Medium (M)	10 to 20	
Silty CLAY	$yC	High (H)	20 to 40	
CLAY	C	Very High (VH)	40 Plus	
Organic Silt	(O$)			Material passing the No. 200 sieve which exhibits plastic properties within a certain range of moisture content, and exhibits fine granular and organic characteristics.

II. Definition of Component Proportions

Component	Written	Proportions	Symbol	Percentage Range by Weight*
Principal	CAPITALS	---		50 or more
Minor	Lower Case	and	a.	35 to 50
		some	s.	20 to 35
		little	l.	10 to 20
		trace	t.	1 to 10

* Minus sign (-) lower limit, plus sign (+) upper limit, no sign middle range.

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects

MATAWAN OFFICE
Victoria Plaza
30 Freneau Avenue (Route 79)
Matawan, N.J. 07747
Phone (732) 583-5900
Fax (732) 583-6619
E-mail - geotech@maserconsulting.com

PROJECT TWO RIVER THEATRE
RED BANK, NEW JERSEY
PROJECT NO. 01-0184A

SHEET 1 OF 1
BORING NO. TB-1
LOCATION SEE PLAN
OFFSET

DEPTH OF WATER ____ FT. W/ ____ FT. CASING OUT ON ____
DEPTH OF WATER ____ FT. W/ ALL CASING OUT ON ____

DATE STARTED 8/20/02
DATE FINISHED 8/20/02

GROUND ELEV.
GROUND WATER ELEV.

WEIGHT OF HAMMER:
CASING ____ LBS SAMPLER 140 LBS
INSIDE LENGTH OF SAMPLER: 24 IN.

CASING: O.D. ____ I.D. ____
SAMPLER: O.D. 2" I.D. 1-3/8"
COUPLING: O.D. ____ I.D. ____

HAMMER FALL ON:
CASING
SAMPLER 30"

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLE NUMBER / DEPTHS BELOW SURFACE, FT.	BLOWS PER 6" ON SAMPLER 0-6"	6-12"	12-18"	18-24"	PROFILE CHANGE DEPTH / ELEV.	IDENTIFICATION OF SOILS / REMARKS
0	H	S-1	–	14	18	25		3" Asphalt.
	O	0'-2'						S-1: Orange-Brown mf SAND, little(+) Silt. TIP: Red Brick Fragments.
	L	S-2	15	9	7	5		S-2: TOP: Red Brick Fragments. BOT: Orange-Brown – Brown mf SAND, some(–) Silt, (Very Moist).
	L	2'-4'						S-3: Brown mf SAND, little(+) Silt, (Very Moist).
	O	S-3	3	2	3	2		
	W	4'-6'						S-4: Brown mf SAND, little Silt, (Very Moist).
		S-4	3	4	4	5		
	S	6'-8'						S-5: Orange-Brown cmf SAND, little Silt, (Moist).
	T	S-5	3	5	8	8		
	E	8'-10'						S-6: Orange-Brown cmf SAND, some cmf Gravel, little Silt, (Moist)..
10	M	S-6	13	12	17	22		
		10'-12'						
	A							
	U							
	G							
	E	S-7	6	10	12	16		S-7: Lt. Orange-Brown cmf SAND, little(–) Silt, (Moist).
	R	15'-17'						
20								END OF BORING AT 17.0 FEET
30								
40								NOTE: TEST BORING WAS STOPPED AT 17 FEET, EXISTING PROPERTY OWNER TOLD US TO GET OFF OF HIS PROPERTY.

Soils Engineer: James J. Serpico, Jr.
Drilling Inspector: T. Kolakowski
Contractor: Granese Drilling, Inc.
Driller: Mike Granese

VISUAL IDENTIFICATION TERMS USED

Clayey Soils	At Ball Moisture
Clayey Silt	slight Pl. Thread 1/4"
SILT & CLAY	low Pl. Thread 1/8"
CLAY & SILT	medium Pl. Thread 1/16"
Silty CLAY	high Pl. Thread 1/32"
CLAY	very high Pl. Thread 1/64"

Relative Density(Dr) of Granular Soils	
Very loose	0–15 %
Loose	15–35 %
Medium	35–65 %
Dense	65–85 %
Very Dense	85–100%

Consistency of Clayey Soils		
soft	(S)	0.1–0.5 tsf
firm	(F)	0.5–1.0 tsf
med.hard	(MH)	1.0–2.0 tsf
hard	(H)	2.0–4.0 tsf
very hard	(VH)	Over 4.0 tsf

Proportions Used	
trace	= 1–10 %
little	= 10–20 %
some	= 20–35 %
and	= 35–50 %

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects

MATAWAN OFFICE
Victoria Plaza
30 Freneau Avenue (Route 79)
Matawan, N.J. 07747
Phone (732) 583-5900
Fax (732) 583-6619
E-mail - geotech@maserconsulting.com

PROJECT TWO RIVER THEATRE
RED BANK, NEW JERSEY
PROJECT NO. 01-0184A

SHEET 1 OF 1
BORING NO. TB-2
LOCATION SEE PLAN
OFFSET

DEPTH OF WATER 18.0 FT. W/ 0 FT. CASING OUT ON 12/21/02
DEPTH OF WATER ____ FT. W/ ALL CASING OUT ON ____

DATE STARTED 12/21/02
DATE FINISHED 12/21/02

GROUND ELEV.
GROUND WATER ELEV.

WEIGHT OF HAMMER:
CASING ____ LBS SAMPLER 140 LBS
INSIDE LENGTH OF SAMPLER: 24 IN.

CASING: O.D. ____ I.D. ____
SAMPLER: O.D. 2" I.D. 1-3/8"
COUPLING: O.D. ____ I.D. ____

HAMMER FALL ON:
CASING
SAMPLER 30"

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLE NUMBER / DEPTHS BELOW SURFACE, FT.	BLOWS PER 6" ON SAMPLER 0-6"	6-12"	12-18"	18-24"	PROFILE CHANGE DEPTH / ELEV.	IDENTIFICATION OF SOILS / REMARKS
0	H	S-1	–	4	5	5		Augered 6"; 1" Asphalt.
	O	0'-2'						S-1: Top 6": Dk. Brown cmf SAND, trace(+) Silt, trace(+) mf Gravel. Bot 12": Brown cmf SAND, trace(+) Silt.
	L	S-2	3	4	3	3		S-2: Brown cmf SAND, trace(+) Silt.
	L	2'-4'						
	O	S-3	2	2	4	4		S-3: Brown cmf SAND, trace(+) Clayey Silt.
	W	4'-6'						
		S-4	5	6	7	7		S-4: Dk. Yellowish Brown cmf SAND, trace(+) Silt.
	S	6'-8'						
	T	S-5	4	5	8	7		S-5: Dk. Yellowish Brown cmf SAND, trace(+) Silt.
	E	8'-10'						
10	M	S-6	12	9	11	9		S-6: Dk. Yellowish Brown cmf(–) SAND, trace(+) Silt with 4"-6" seam of mf Quartz Gravel.
		10'-12'						
	A							
	U							
	G							
	E	S-7	8	15	16	16		S-7: Lt. Brown, Brown cmf(–) SAND, trace(+) Silt, little(–) mf(+) Gravel with occasional seams of mf Quartz GRAVEL.
	R	15'-17'						
							▼ at 18'	
20		S-8	3	7	7	7		S-8: Reddish Brown c(–)mf SAND, little Silt. (Wet).
		20'-22'						
		S-9	4	7	5	4		S-9: Lt. Brown c(–)mf SAND, little Silt with frequent Reddish Brown staining. (Wet).
		25'-27'						
30								END OF BORING AT 27.0 FEET
40								

Soils Engineer: James J. Serpico, Jr.
Drilling Inspector: James J. Serpico, Jr.
Contractor: Granese Drilling, Inc.
Driller: Mike Granese

VISUAL IDENTIFICATION TERMS USED

Clayey Soils		At Ball Moisture
Clayey Silt	slight Pl.	Thread 1/4"
SILT & CLAY	low Pl.	Thread 1/8"
CLAY & SILT	medium Pl.	Thread 1/16"
Silty CLAY	high Pl.	Thread 1/32"
CLAY	very high Pl.	Thread 1/64"

Relative Density(Dr) of Granular Soils	
Very loose	0–15 %
Loose	15–35 %
Medium	35–65 %
Dense	65–85 %
Very Dense	85–100%

Consistency of Clayey Soils		
soft	(S)	0.1–0.5 tsf
firm	(F)	0.5–1.0 tsf
med.hard	(MH)	1.0–2.0 tsf
hard	(H)	2.0–4.0 tsf
very hard	(VH)	Over 4.0 tsf

Proportions Used	
trace	= 1–10 %
little	= 10–20 %
some	= 20–35 %
and	= 35–50 %

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects

MATAWAN OFFICE
Victoria Plaza
30 Freneau Avenue (Route 79)
Matawan, N.J. 07747
Phone (732) 583-5900
Fax (732) 583-6619
E-mail - geotech@maserconsulting.com

PROJECT TWO RIVER THEATRE
RED BANK, NEW JERSEY
PROJECT NO. 01-0184A

SHEET 1 OF 1
BORING NO. TB-3
LOCATION SEE PLAN
OFFSET

DEPTH OF WATER 18.0 FT. W/ 0 FT. CASING OUT ON 12/21/02
DEPTH OF WATER ____ FT. W/ ALL CASING OUT ON ____

DATE STARTED 12/21/02
DATE FINISHED 12/21/02

GROUND ELEV.
GROUND WATER ELEV.

WEIGHT OF HAMMER:
CASING ____ LBS SAMPLER 140 LBS
INSIDE LENGTH OF SAMPLER: 24 IN.

CASING: O.D. ____ I.D. ____
SAMPLER: O.D. 2" I.D. 1-3/8"
COUPLING: O.D. ____ I.D. ____

HAMMER FALL ON:
CASING
SAMPLER 30"

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLE NUMBER / DEPTHS BELOW SURFACE, FT.	BLOWS PER 6" ON SAMPLER 0-6"	6-12"	12-18"	18-24"	PROFILE CHANGE DEPTH / ELEV.	IDENTIFICATION OF SOILS / REMARKS
0	H							Augered 2'. Top 12": GRAVEL. Bot 12": Dk. Brown cm SAND, little(+) Silt, little mf Gravel.
	O							
	L	S-1	1	1	1	1		S-1: Dk. Gray & Black mf SAND, some Silt, little(+) Silt. (Moist, Reworked Fill).
	L	2'-4'						
	O	S-2	2	2	3	3		S-2: Brown c(-)mf SAND, little(+) Clayey Silt. (Very Moist to Wet; Perched).
	W	4'-6'						
		S-3	4	4	6	7		S-3: Dk. Yellowish Brown cmf SAND, little Clayey Silt.(V. Moist to Wet;perched)
	S	6'-8'						
	T	S-4	9	8	10	9		S-4: No Recovery. (Brick Fragments in Tip).
	E	8'-10'						
10	M	S-5	12	14	16	14		S-5: Dk. Yellowish Brown cmf(-) SAND, trace(+) Silt, little mf(+) Gravel. (Brick Fragments in Tip, Dry).
		10'-12'						
	A							
	U							
	G							
	E	S-6	10	12	13	19		S-6: No Recovery. (Brick Fragments in Tip).
	R	15'-17'						
							▼ at 18'	
20		S-7	5	3	5	5		S-7: Lt. Brown mf SAND, some(-) Clayey Silt with frequent Reddish Brown stains. Pale Green cmf SAND seams near Tip. (Wet).
		20'-22'						
		S-8	3	4	5	7		S-8: Top: Dk. Yellowish Brown cmf SAND, little Silt, trace f Gravel. (Wet). Bot: Grayish Brown CLAYEY SILT, little(+) f Sand with occasional partings & lenses of Lt. Gray cmf SAND.
		25'-27'						
30								**END OF BORING AT 27.0 FEET**
40								

Soils Engineer: James J. Serpico, Jr.
Drilling Inspector: James J. Serpico, Jr.
Contractor: Granese Drilling, Inc.
Driller: Mike Granese

VISUAL IDENTIFICATION TERMS USED

Clayey Soils	At Ball Moisture
Clayey Silt	slight Pl. Thread 1/4"
SILT & CLAY	low Pl. Thread 1/8"
CLAY & SILT	medium Pl. Thread 1/16"
Silty CLAY	high Pl. Thread 1/32"
CLAY	very high Pl. Thread 1/64"

Relative Density(Dr) of Granular Soils	
Very loose	0-15 %
Loose	15-35 %
Medium	35-65 %
Dense	65-85 %
Very Dense	85-100%

Consistency of Clayey Soils		
soft	(S)	0.1-0.5 tsf
firm	(F)	0.5-1.0 tsf
med.hard	(MH)	1.0-2.0 tsf
hard	(H)	2.0-4.0 tsf
very hard	(VH)	Over 4.0 tsf

Proportions Used	
trace	= 1-10 %
little	= 10-20 %
some	= 20-35 %
and	= 35-50 %

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects

MATAWAN OFFICE
Victoria Plaza
30 Freneau Avenue (Route 79)
Matawan, N.J. 07747
Phone (732) 583-5900
Fax (732) 583-6619
E-mail - geotech@maserconsulting.com

PROJECT TWO RIVER THEATRE
RED BANK, NEW JERSEY
PROJECT NO. 01-0184A

SHEET 1 OF 1
BORING NO. TB-4
LOCATION SEE PLAN
OFFSET

DEPTH OF WATER 14.0 FT. W/ 0 FT. CASING OUT ON 12/21/02
DEPTH OF WATER ____ FT. W/ ALL CASING OUT ON ____

DATE STARTED 12/21/02
DATE FINISHED 12/21/02

GROUND ELEV.
GROUND WATER ELEV.

WEIGHT OF HAMMER:
CASING ____ LBS SAMPLER 140 LBS
INSIDE LENGTH OF SAMPLER: 24 IN.

CASING: O.D. ____ I.D. ____
SAMPLER: O.D. 2" I.D. 1-3/8"
COUPLING: O.D. ____ I.D. ____

HAMMER FALL ON:
CASING
SAMPLER 30"

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLE NUMBER / DEPTHS BELOW SURFACE, FT.	BLOWS PER 6" ON SAMPLER 0-6"	6-12"	12-18"	18-24"	PROFILE CHANGE DEPTH / ELEV.	IDENTIFICATION OF SOILS / REMARKS
0	H	S-1	–	–	2	2		Augered 12"; 4"Lean Concrete. S-1: Brown c(–)mf SAND, trace(+) Silt.
	O	0'-2'						
	L	S-2	2	2	2	3		S-2: Top: Brown c(–)mf SAND, trace(+) Silt. Bot: Reddish Brown cmf SAND, little Clayey Silt. Occasional Gray-Brown CLAYEY SILT seams. (Very Moist to Wet).
	L	2'-4'						
	O	S-3	6	6	6	8		S-3: 2" Recovery. Reddish Brown cmf SAND, little Clayey Silt. Occasional Gray-Brown CLAYEY SILT seams. (Very Moist to Wet).
	W	4'-6'						
		S-4	9	9	9	11		S-4: 3" Recovery. Dk. Green cmf(–) SAND, little(+) Clayey Silt. (Glauconitic).
	S	6'-8'						
	T	S-5	5	6	8	12		S-5: Dk. Yellowish Brown cmf(–) SAND, little(+) mf(+) Gravel, trace(+) Silt. (Dry).
	E	8'-10'						
10	M	S-6	13	12	12	12		S-6: Dk. Yellowish Brown cmf(–) SAND, little(+) mf(+) Gravel, trace(+) Silt. (Dry).
		10'-12'						
	A							
	U						▼ at 14'	
	G							
	E	S-7	8	9	11	10		S-7: Dk. Yellowish Brown cmf(–) SAND, little(+) mf(+) Gravel, trace(+) Silt. (Dry).
	R	15'-17'						
20		S-8	6	8	12	11		S-8: Orange-Brown cmf SAND, little(–) Silt with occasional Reddish Brown stains. (Wet).
		20'-22'						
30								END OF BORING AT 22.0 FEET
40								

Soils Engineer: James J. Serpico, Jr.
Drilling Inspector: James J. Serpico, Jr.
Contractor: Granese Drilling, Inc.
Driller: Mike Granese

VISUAL IDENTIFICATION TERMS USED

Clayey Soils	At Ball Moisture
Clayey Silt	slight Pl.
SILT & CLAY	low Pl.
CLAY & SILT	medium Pl.
Silty CLAY	high Pl.
CLAY	very high Pl.

At Ball Moisture
Thread 1/4"
Thread 1/8"
Thread 1/16"
Thread 1/32"
Thread 1/64"

Relative Density(Dr) of Granular Soils	
Very loose	0–15 %
Loose	15–35 %
Medium	35–65 %
Dense	65–85 %
Very Dense	85–100%

Consistency of Clayey Soils		
soft	(S)	0.1–0.5 tsf
firm	(F)	0.5–1.0 tsf
med.hard	(MH)	1.0–2.0 tsf
hard	(H)	2.0–4.0 tsf
very hard	(VH)	Over 4.0 tsf

Proportions Used	
trace	= 1–10 %
little	= 10–20 %
some	= 20–35 %
and	= 35–50 %

MASER CONSULTING P.A.
Consulting, Municipal & Environmental Engineers
Planners ▪ Surveyors ▪ Landscape Architects

MATAWAN OFFICE
Victoria Plaza
30 Freneau Avenue (Route 79)
Matawan, N.J. 07747
Phone (732) 583-5900
Fax (732) 583-6619
E-mail - geotech@maserconsulting.com

PROJECT TWO RIVER THEATRE
RED BANK, NEW JERSEY
PROJECT NO. 01-0184A

SHEET 1 OF 1
BORING NO. TB-5
LOCATION SEE PLAN
OFFSET

DEPTH OF WATER 15.0 FT. W/ 0 FT. CASING OUT ON 12/21/02
DEPTH OF WATER ____ FT. W/ ALL CASING OUT ON ____

DATE STARTED 12/21/02
DATE FINISHED 12/21/02

GROUND ELEV.
GROUND WATER ELEV.

WEIGHT OF HAMMER:
CASING ____ LBS SAMPLER 140 LBS
INSIDE LENGTH OF SAMPLER: 24 IN.

CASING: O.D. ____ I.D. ____
SAMPLER: O.D. 2" I.D. 1-3/8"
COUPLING: O.D. ____ I.D. ____

HAMMER FALL ON:
CASING
SAMPLER 30"

DEPTH BELOW SURFACE	CASING BLOWS PER FOOT	SAMPLE NUMBER / DEPTHS BELOW SURFACE, FT.	BLOWS PER 6" ON SAMPLER 0-6"	6-12"	12-18"	18-24"	PROFILE CHANGE DEPTH / ELEV.	IDENTIFICATION OF SOILS / REMARKS
0	H	S-1	–	8	8	3		Augered 6". 1.5" Asphalt.
	O	0'-2'						S-1: Brown & Black mf SAND, little (+) Silt with regular pockets of Black mf Gravel. (Reworked Fills).
	L	S-2	2	2	1	1		S-2: Brown c(–)mf SAND, trace(+) Silt.
	L	2'-4'						
	O	S-3	2	1	1	2		S-3: No Recovery.
	W	4'-6'						
		S-4	2	2	2	2		S-4: Brown c(–)mf SAND, little Silt with occasional c GRAVEL in Top. (Very Moist to Wet, Fill?).
	S	6'-8'						
	T	S-5	3	2	1	1		S-5: 1" Recovery. Black cm GRAVEL. (Fills).
	E	8'-10'						
10	M	S-6	1	1	1/12"			S-6: 3" Recovery. Dk. Yellowish Brown cmf SAND, trace(+) Silt.
		10'-12'						
	A	S-7	2	1	1/12"			S-7: No Recovery.
	U	12'-14'						
	G							
	E	S-8	2	1	3	3	▼ at 15'	S-8: Brown cmf(–) SAND, trace(+) Silt, trace(+) mf Gravel. (Wet).
	R	15'-17'						
		S-9	5	6	6	5		S-9: Top 20": Reddish Brown cmf(–) SAND, little(–) mf(+) Gravel, little Silt. (Wet). Bot 4": Brown CLAYEY SILT, little(–) f Sand. (Wet).
		17'-19'						
20		S-10	3	4	4	8		S-10: Top: Brown CLAYEY SILT, little(–) f Sand. (Wet). Bot: Grayish Tan SILT, some(+) f Sand. Occasional Reddish Brown partings. (Wet).
		20'-22'						
		S-11	7	3	3	4		S-11: Grayish Tan SILT, some f Sand with Orange-Brown mf SAND seams in Tip. (Wet).
		25'-27'						
30								**END OF BORING AT 27.0 FEET**
40								

Soils Engineer: James J. Serpico, Jr.
Drilling Inspector: James J. Serpico, Jr.
Contractor: Granese Drilling, Inc.
Driller: Mike Granese

VISUAL IDENTIFICATION TERMS USED

Clayey Soils	At Ball Moisture
Clayey Silt	slight Pl. Thread 1/4"
SILT & CLAY	low Pl. Thread 1/8"
CLAY & SILT	medium Pl. Thread 1/16"
Silty CLAY	high Pl. Thread 1/32"
CLAY	very high Pl. Thread 1/64"

Relative Density(Dr) of Granular Soils	
Very loose	0–15 %
Loose	15–35 %
Medium	35–65 %
Dense	65–85 %
Very Dense	85–100%

Consistency of Clayey Soils		
soft	(S)	0.1–0.5 tsf
firm	(F)	0.5–1.0 tsf
med.hard	(MH)	1.0–2.0 tsf
hard	(H)	2.0–4.0 tsf
very hard	(VH)	Over 4.0 tsf

Proportions Used	
trace	= 1–10 %
little	= 10–20 %
some	= 20–35 %
and	= 35–50 %