Bi-monthly Special Inspection Report

Bi-monthly Report #: 2

Permit #: PRCOM20222242
Project Address: 540 NE Town Centre Drive Lee's Summit, MO
Project Name: New Building for Indoor Batting Cages
Agency Name: Apex Engineers, Inc

Date: 08.05.2022

This report covers work completed between 07.16.2022 and 07.31.2022.

This is to certify that I, or qualified individual working under my direction, inspected and/or tested the following items in accordance with Section 1705 of the 2018 International Building Code:

- [x] Attachments (Concrete Break Results, RFI's, etc.)
- [ ] Placement of Reinforced Concrete
- [ ] Placement of Shotcrete
- [ ] Testing of Reinforced Concrete
- [ ] Placement of Reinforcing Steel
- [ ] Placement of Prestressing Steel
- [ ] Bolts Installed in Concrete
- [ ] Post-Installed Anchors
- [ ] Verification of Soils
- [ ] Excavation and Filling
- [ ] Deep Foundations
- [ ] Earth-Retaining Structures
- [ ] Detention Basin
- [ ] EIFS
- [ ] Smoke Control
- [ ] Other:
- [ ] Shotcrete
- [ ] None - No Inspections made
- [ ] Erection of Precast Concrete
- [ ] Steel Frame Inspection
- [ ] High Strength Bolting
- [ ] Structural Welding
- [ ] Sprayed Fire Resistant Materials
- [ ] Structural Masonry
- [ ] Wood Construction
- [ ] Seismic Resistance
- [ ] Firestop
- [ ] Drill & Epoxy

INSPECTION OF FABRICATORS

- [ ] Metal Building
- [ ] Structural Steel
- [ ] Wood Construction
- [ ] Precast Concrete

Except where noted in the attached report, the work was found to be in substantial compliance with the city reviewed plans, specifications, and applicable provisions of the Building Code. All daily reports and EOR/AOR resolutions are attached.

STATE OF MISSOURI
CLAYTON J. TESS
NUMBER PE-2003000003
2022.08.08
PROFESSIONAL ENGINEER

Signed: Clayton J Tess Date: 08.08.2022

Denver, CO 720-588-3222 Kansas City, MO 816-421-3222 Lawrence, KS 785-337-3222

apex-engineers.com

Non-Conforming Items Requiring Resolution

APEX ENGINEERS, INC.

Permit #: PRCOM20222242 **Date:** 07.31.2022
Project Address: 540 NE Town Centre Drive Lee's Summit, MO
Project Name: New Building for Indoor Batting Cages
Agency Name: Apex Engineers, Inc **Insp/Engr:** Clayton J. Hess

Final Approval Status: _____

Item	Date	Report	Discrepancy Description	Resolution Date
			None to Report	

See attached details for further clarification

CFS ENGINEERS

1100 W Cambridge Circle Drive
Suite 700
Kansas City, Kansas 66103
913.627.9040

2121 Moodie Road
Lawrence, Kansas 66046
785.856.9600

2011 NW Topeka Blvd
Topeka, Kansas 66608
785.270.6447

DAILY FIELD REPORT

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

ATTN: Steve Fitch

WEATHER: Sunny

TEMPERATURE: 92

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

DATE: 7/12/22

CFS PERSONNEL: M. Capps

REPORT #: 22-1010-dr-14

DEVIATIONS

DEVIATION	YES	NO
	☐	☑

SOILS - COMPACTION MONITORING / TESTING

- Field compaction tests performed for building pad.
- Fill found to be substantial compliance with project plans. Test results attached.

CFS ENGINEERS

KCK 1100 W Cambridge Circle Drive Suite 700 Kansas City, Kansas 66103 PHONE: 913.627.9040
Lawrence 2121 Moodie Road Lawrence, Kansas 66046 PHONE: 785.856.9600
North Topeka 2011 NW Topeka Blvd Topeka, Kansas 66608 PHONE: 785.270.6447

FIELD COMPACTION TEST DATA

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

ATTN: Steve Fitch

INSPECTOR: M. Capps

DATE: 7/12/2022

REPORT #: 22-1010-dr-14B

TEST NO.	TEST LOCATION	SOIL ID / LAB NO.	DEPTH / ELEV	IN PLACE WET DENSITY (pcf)	IN PLACE DRY DENSITY (pcf)	IN PLACE MOISTURE CONTENT (%)	PERCENT COMPACTION (%)	COMMENT
1	NW Corner Building Pad	L22-121	-4'	115.7	98.9	17.0	101.0	
2	NE Corner Building Pad	L22-121	-4'	107.5	90.8	18.4	92.7	
3	SE Corner Building Pad	L22-121	-1	112.8	92.1	22.5	94.1	
4	Center Building Pad	L22-121	-1	118.3	97.6	21.2	99.7	
5	SW Corner Building Pad	L22-121	-1	118.4	100.5	17.8	102.7	

LAB DATA				SPECIFICATIONS	
SOIL ID/LAB NUMBER:	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	COMPACTION SPEC (%)	MOISTURE RANGE (%)
L22-121	Reddish Brown Lean to Fat Clay w/ Trace Organics	97.9	19.9	95	-3 / +3

NUCLEAR DENSITY GUAGE	
Make:	TROXLER
Model:	
Serial Number:	
Gauge No:	

COMMENTS	
1. Structural Fill	A. Test Results in Substantial Compliance with Project Specifications
2. General Fill	B. Recompaction Required
3. Base Course	C. Test is After Recompaction
4. Trench Backfill	D. Moisture in Excess of Specs.
5. Other	E. Moisture Below Specs.

ADDITIONAL COMMENTS

Respectfully Submitted,
COOK, FLATT & STROBEL ENGINEERS, P.A.

Adam McEachron, P.E | Senior Project Engineer

Field results reported to _____

with _____

CFS ENGINEERS

1100 W Cambridge Circle Drive
Suite 700
Kansas City, Kansas 66103
913.627.9040

2121 Moodie Road
Lawrence, Kansas 66046
785.856.9600

2011 NW Topeka Blvd
Topeka, Kansas 66608
785.270.6447

DAILY FIELD REPORT

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

ATTN: Steve Fitch

WEATHER: Sunny

TEMPERATURE: 71-93

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

DATE: 7/13/22

CFS PERSONNEL: K. Burnett

REPORT #: 22-1010-dr-15

DEVIATIONS

DEVIATION	YES	NO
	☐	☑

SOILS - COMPACTION MONITORING / TESTING

- Field compaction tests performed for building pad.
- Fill found to be substantial compliance with project plans. Test results attached.

CFS ENGINEERS

KCK 1100 W Cambridge Circle Drive Suite 700 Kansas City, Kansas 66103 PHONE: 913.627.9040
Lawrence 2121 Moodie Road Lawrence, Kansas 66046 PHONE: 785.856.9600
North Topeka 2011 NW Topeka Blvd Topeka, Kansas 66608 PHONE: 785.270.6447

FIELD COMPACTION TEST DATA

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

ATTN: Steve Fitch

INSPECTOR: K. Burnett

DATE: 7/13/2022

REPORT #: 22-1010-dr-15B

TEST NO.	TEST LOCATION	SOIL ID / LAB NO.	DEPTH / ELEV	IN PLACE WET DENSITY (pcf)	IN PLACE DRY DENSITY (pcf)	IN PLACE MOISTURE CONTENT (%)	PERCENT COMPACTION (%)	COMMENT
1	NW Corner of Building	L22-121	-3'	123.4	104.2	18.4	106.4	
2	NE Corner of Building	L22-121	-3'	121.7	102.4	18.8	104.6	
3	SE Corner of Building	L22-121	-1.5	116.2	98.7	17.7	100.8	
4	Center of Building	L22-121	-1.5'	117.4	96.7	21.4	98.8	
5	SW Corner of Building	L22-121	-1.5'	121.0	102.0	18.6	104.2	
6	NW Corner of Building	L22-121	-1'	118.0	101.6	16.1	103.8	
7	NE Corner of Building	L22-121	-1'	122.4	98.0	24.9	100.1	
8	SE Corner of Building	L22-121	0	121.1	100.0	21.1	102.1	
9	NE Corner of Building	L22-121	0	118.5	101.0	17.3	103.2	

LAB DATA				SPECIFICATIONS	
SOIL ID/LAB NUMBER:	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	COMPACTION SPEC (%)	MOISTURE RANGE (%)
L22-121	Reddish Brown Lean to Fat Clay w/ Trace Organics	97.9	19.9	95	-3 / +3

NUCLEAR DENSITY GUAGE	
Make:	TROXLER
Model:	
Serial Number:	
Gauge No:	

COMMENTS	
1. Structural Fill	A. Test Results in Substantial Compliance with Project Specifications
2. General Fill	B. Recompaction Required
3. Base Course	C. Test is After Recompaction
4. Trench Backfill	D. Moisture in Excess of Specs.
5. Other	E. Moisture Below Specs.

ADDITIONAL COMMENTS

Respectfully Submitted,
COOK, FLATT & STROBEL ENGINEERS, P.A.

Adam McEachron, P.E | Senior Project Engineer

Field results reported to _____

with _____

CFS ENGINEERS

1100 W Cambridge Circle Drive
Suite 700
Kansas City, Kansas 66103
913.627.9040

2121 Moodie Road
Lawrence, Kansas 66046
785.856.9600

2011 NW Topeka Blvd
Topeka, Kansas 66608
785.270.6447

DAILY FIELD REPORT

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

ATTN: Steve Fitch

WEATHER: Sunny

TEMPERATURE: 77-99

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

DATE: 7/14/22

CFS PERSONNEL: K. Burnett

REPORT #: 22-1010-dr-16

DEVIATIONS

DEVIATION	YES	NO
	☐	☑

SOILS - COMPACTION MONITORING / TESTING

- Field compaction tests performed for building pad.
- Fill found to be substantial compliance with project plans. Test results attached.

CFS ENGINEERS

KCK 1100 W Cambridge Circle Drive Suite 700 Kansas City, Kansas 66103 PHONE: 913.627.9040
Lawrence 2121 Moodie Road Lawrence, Kansas 66046 PHONE: 785.856.9600
North Topeka 2011 NW Topeka Blvd Topeka, Kansas 66608 PHONE: 785.270.6447

FIELD COMPACTION TEST DATA

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

ATTN: Steve Fitch

INSPECTOR: K. Burnett

DATE: 7/14/2022

REPORT #: 22-1010-dr-16B

TEST NO.	TEST LOCATION	SOIL ID / LAB NO.	DEPTH / ELEV	IN PLACE WET DENSITY (pcf)	IN PLACE DRY DENSITY (pcf)	IN PLACE MOISTURE CONTENT (%)	PERCENT COMPACTION (%)	COMMENT
1	75' N and 30' E of SW Corner	L22-121	0	118.8	99.3	19.6	101.4	
2	20' S and 20' E of NW Corner	L22-121	0	121.4	101.3	19.8	103.5	
3	25' S and 100' E of NW Corner	L22-121	0	123.7	103.8	19.2	106.0	
4	50' N and 20' W of SE Corner	L22-121	0	118.6	97.6	21.5	99.7	

LAB DATA				SPECIFICATIONS	
SOIL ID/LAB NUMBER:	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	COMPACTION SPEC (%)	MOISTURE RANGE (%)
L22-121	Reddish Brown Lean to Fat Clay w/ Trace Organics	97.9	19.9	95	-3 / +3

NUCLEAR DENSITY GUAGE	
Make:	TROXLER
Model:	3430
Serial Number:	25000
Gauge No:	4

COMMENTS	
1. Structural Fill	A. Test Results in Substantial Compliance with Project Specifications
2. General Fill	B. Recompaction Required
3. Base Course	C. Test is After Recompaction
4. Trench Backfill	D. Moisture in Excess of Specs.
5. Other	E. Moisture Below Specs.

ADDITIONAL COMMENTS

Respectfully Submitted,
COOK, FLATT & STROBEL ENGINEERS, P.A.

Adam McEachron, P.E | Senior Project Engineer

Field results reported to _____

with _____

CFS ENGINEERS

1100 W Cambridge Circle Drive
Suite 700
Kansas City, Kansas 66103
913.627.9040

2121 Moodie Road
Lawrence, Kansas 66046
785.856.9600

2011 NW Topeka Blvd
Topeka, Kansas 66608
785.270.6447

DAILY FIELD REPORT

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

ATTN: Steve Fitch

WEATHER: Sunny

TEMPERATURE: 95

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

DATE: 7/20/22

CFS PERSONNEL: L. Myers

REPORT #: 22-1010-dr-17

DEVIATIONS

DEVIATION	YES	NO
	☐	☑

SOILS - COMPACTION MONITORING / TESTING

- Field compaction tests performed for building pad, including retests of #2 and #3 on 7/12/2022.
- Fill found to be substantial compliance with project plans. Test results attached.

CFS ENGINEERS

KCK 1100 W Cambridge Circle Drive Suite 700 Kansas City, Kansas 66103 PHONE: 913.627.9040
Lawrence 2121 Moodie Road Lawrence, Kansas 66046 PHONE: 785.856.9600
North Topeka 2011 NW Topeka Blvd Topeka, Kansas 66608 PHONE: 785.270.6447

FIELD COMPACTION TEST DATA

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

ATTN: Steve Fitch

INSPECTOR: L. Myers

DATE: 7/20/2022

REPORT #: 22-1010-dr-17B

TEST NO.	TEST LOCATION	SOIL ID / LAB NO.	DEPTH / ELEV	IN PLACE WET DENSITY (pcf)	IN PLACE DRY DENSITY (pcf)	IN PLACE MOISTURE CONTENT (%)	PERCENT COMPACTION (%)	COMMENT
1	Building Pad 1st Lift	L22-121	-3'	121.2	97.9	23.8	100.0	1A
2	Building Pad 1st Lift	L22-121	-3'	115.2	92.3	24.8	95.0	1A
3	Building Pad 1st Lift	L22-121	-1'	116.6	96.4	21.0	98.5	1A

LAB DATA				SPECIFICATIONS	
SOIL ID/LAB NUMBER:	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	COMPACTION SPEC (%)	MOISTURE RANGE (%)
L22-121	Reddish Brown Lean to Fat Clay w/ Trace Organics	97.9	19.9	95	-3 / +3

NUCLEAR DENSITY GUAGE	
Make:	TROXLER
Model:	3430
Serial Number:	69469
Gauge No:	11

COMMENTS	
1. Structural Fill	A. Test Results in Substantial Compliance with Project Specifications
2. General Fill	B. Recompaction Required
3. Base Course	C. Test is After Recompaction
4. Trench Backfill	D. Moisture in Excess of Specs.
5. Other	E. Moisture Below Specs.

ADDITIONAL COMMENTS

Respectfully Submitted,
COOK, FLATT & STROBEL ENGINEERS, P.A.

Adam McEachron, P.E | Senior Project Engineer

Field results reported to Mike

with D-Bats

CFS ENGINEERS

KCK 1100 W Cambridge Circle Drive Suite 700 Kansas City, Kansas 66103 PHONE: 913.627.9040
Lawrence 2121 Moodie Road Lawrence, Kansas 66046 PHONE: 785.856.9600
North Topeka 2011 NW Topeka Blvd Topeka, Kansas 66608 PHONE: 785.270.6447

FIELD COMPACTION TEST DATA

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

ATTN: Steve Fitch

INSPECTOR: K. Burnett

DATE: 7/21/2022

REPORT #: 22-1010-dr-18B

TEST NO.	TEST LOCATION	SOIL ID / LAB NO.	DEPTH / ELEV	IN PLACE WET DENSITY (pcf)	IN PLACE DRY DENSITY (pcf)	IN PLACE MOISTURE CONTENT (%)	PERCENT COMPACTION (%)	COMMENT
1	NW Corner of Building	LS	-1.5	134.0	125.1	7.1	96.8	1A
2	SW Corner of Building	LS	-1.5	134.6	122.7	9.7	95.0	1A
3	SE Corner of Building	LS	-1.5	132.5	122.7	8.0	95.0	1A
4	NE Corner of Building	LS	-1.5	141.3	128.5	10.0	99.5	1A
5	SW Corner of Building	LS	-1	145.4	132.0	10.2	102.2	1A
6	NW Corner of Building	LS	-1	138.2	129.6	6.6	100.3	1A

LAB DATA				SPECIFICATIONS	
SOIL ID/LAB NUMBER:	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	COMPACTION SPEC (%)	MOISTURE RANGE (%)
L22-121	Reddish Brown Lean to Fat Clay w/ Trace Organics	97.9	19.9	95	-3 / +3
LS	Limstone Screenings	129.2	8.8	95	

NUCLEAR DENSITY GUAGE	
Make:	TROXLER
Model:	3430
Serial Number:	31283
Gauge No:	9

COMMENTS	
1. Structural Fill	A. Test Results in Substantial Compliance with Project Specifications
2. General Fill	B. Recompaction Required
3. Base Course	C. Test is After Recompaction
4. Trench Backfill	D. Moisture in Excess of Specs.
5. Other	E. Moisture Below Specs.

ADDITIONAL COMMENTS

Respectfully Submitted,
COOK, FLATT & STROBEL ENGINEERS, P.A.

Adam McEachron, P.E | Senior Project Engineer

Field results reported to _____

with _____

CFS ENGINEERS

1100 W Cambridge Circle Drive
Suite 700
Kansas City, Kansas 66103
913.627.9040

2121 Moodie Road
Lawrence, Kansas 66046
785.856.9600

2011 NW Topeka Blvd
Topeka, Kansas 66608
785.270.6447

DAILY FIELD REPORT

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

ATTN: Steve Fitch

WEATHER: Sunny

TEMPERATURE: 77-99

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

DATE: 7/22/22

CFS PERSONNEL: K. Burnett

REPORT #: 22-1010-dr-20

DEVIATIONS

DEVIATION	YES	NO
	☐	☑

SOILS - COMPACTION MONITORING / TESTING

- Field compaction tests performed for building.
- Fill found to be substantial compliance with project plans. Test results attached.

CFS ENGINEERS

KCK 1100 W Cambridge Circle Drive Suite 700 Kansas City, Kansas 66103 PHONE: 913.627.9040
Lawrence 2121 Moodie Road Lawrence, Kansas 66046 PHONE: 785.856.9600
North Topeka 2011 NW Topeka Blvd Topeka, Kansas 66608 PHONE: 785.270.6447

FIELD COMPACTION TEST DATA

CLIENT: Apex Engineers, Inc.
1625 Locust
Kansas City, Missouri 64108

PROJECT: Apex On-Call
D-Bats
Lee's Summit, MO

ATTN: Steve Fitch

INSPECTOR: K. Burnett

DATE: 7/22/2022

REPORT #: 22-1010-dr-22B

TEST NO.	TEST LOCATION	SOIL ID / LAB NO.	DEPTH / ELEV	IN PLACE WET DENSITY (pcf)	IN PLACE DRY DENSITY (pcf)	IN PLACE MOISTURE CONTENT (%)	PERCENT COMPACTION (%)	COMMENT
1	NE Corner of Building	LS	-1	140.9	130.2	8.2	100.8	3A
2	SE Corner of Building	LS	-1'	140.9	131.4	7.2	101.7	3A
3	NW Corner of Building	LS	-0.5	139.9	130.9	6.9	101.3	3A
4	SW Corner of Building	LS	-0.5	133.8	124.6	7.4	96.4	3A
5	NE Corner of Building	LS	-0.5	142.0	130.3	9.0	100.9	3A
6	NW Corner of Building	LS	0	143.9	132.8	8.4	102.8	3A
7	SW Corner of Building	LS	0	143.5	131.9	8.8	102.1	3A
8	NE Corner of Building	LS	0	144.1	133.8	7.7	103.6	3A

LAB DATA				SPECIFICATIONS	
SOIL ID/LAB NUMBER:	SOIL DESCRIPTION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)	COMPACTION SPEC (%)	MOISTURE RANGE (%)
L22-121	Reddish Brown Lean to Fat Clay w/ Trace Organics	97.9	19.9	95	-3 / +3
LS	Limstone Screenings	129.2	8.8	95	

NUCLEAR DENSITY GUAGE	
Make:	TROXLER
Model:	3430
Serial Number:	31283
Gauge No:	9

COMMENTS	
1. Structural Fill	A. Test Results in Substantial Compliance with Project Specifications
2. General Fill	B. Recompaction Required
3. Base Course	C. Test is After Recompaction
4. Trench Backfill	D. Moisture in Excess of Specs.
5. Other	E. Moisture Below Specs.

ADDITIONAL COMMENTS

Respectfully Submitted,
COOK, FLATT & STROBEL ENGINEERS, P.A.

Adam McEachron, P.E | Senior Project Engineer

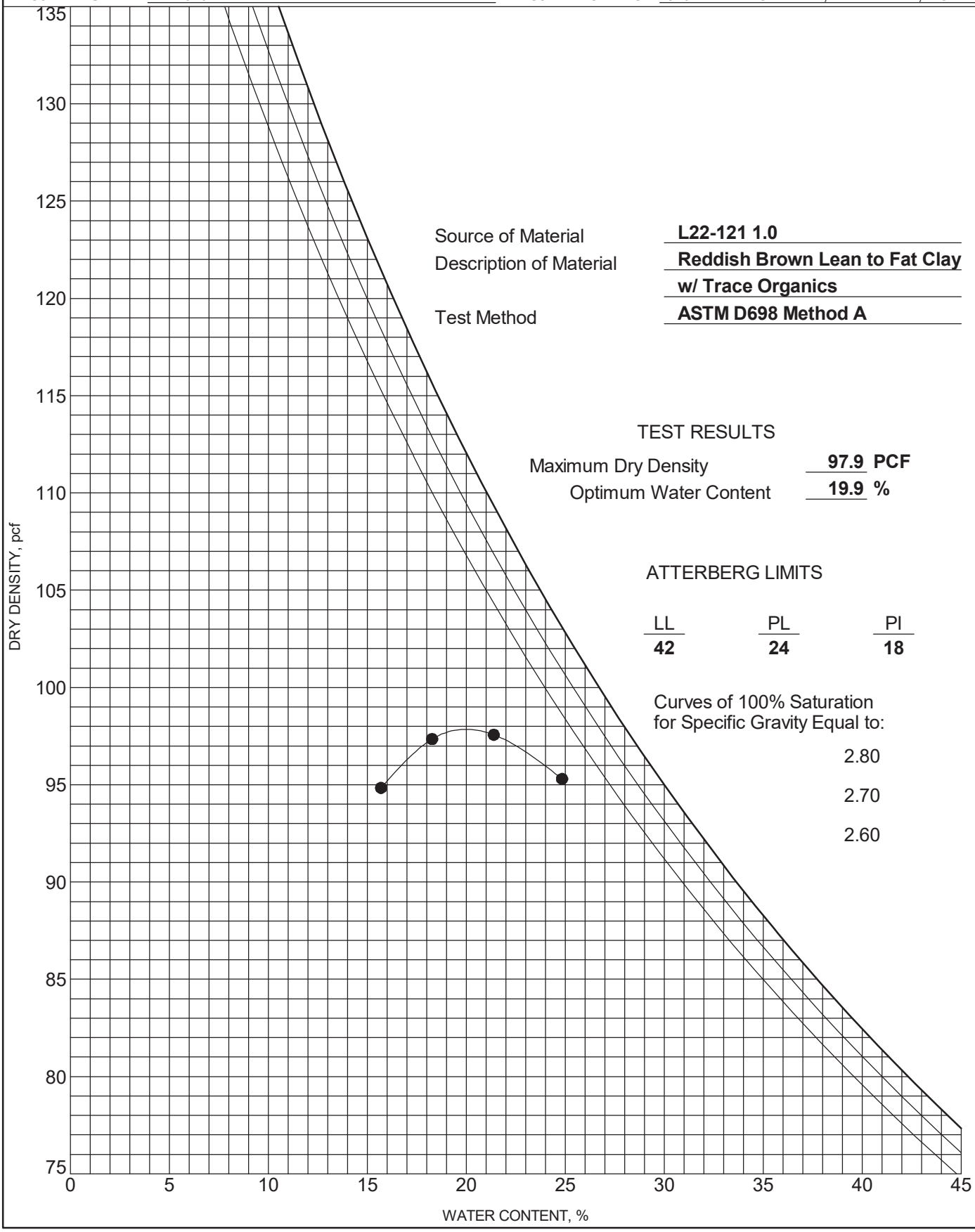
Field results reported to _____

with _____

MOISTURE-DENSITY RELATIONSHIP

CFS
1100 W Cambridge Circle Drive
Kansas City, KS 66103

CLIENT Apex Engineers, Inc
PROJECT NAME D-Bats
PROJECT NUMBER 22-1010
PROJECT LOCATION 520 NE Town Centre Dr., Lee's Summit, MO



Source of Material: **L22-121 1.0**
Description of Material: **Reddish Brown Lean to Fat Clay w/ Trace Organics**
Test Method: **ASTM D698 Method A**

TEST RESULTS

Maximum Dry Density	**97.9**	**PCF**
Optimum Water Content	**19.9**	**%**

ATTERBERG LIMITS

LL	PL	PI
42	**24**	**18**

Curves of 100% Saturation for Specific Gravity Equal to:

2.80
2.70
2.60