Concrete Test Report

DATE OF REPORT: 10/27/03

PROJECT: Fort Collins Zoo - Primate Habitat 1
BLDG. PERMIT NO.: Hegering International
PROJECT NUMBER: S91003-24
CYLINDER SET NO.: 1

<table>
<thead>
<tr>
<th>SAMPLING DATA</th>
<th>MIX DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE SAMPLED: 02/26/03</td>
<td>SPEC. STRENGTH: 4000 PSI</td>
</tr>
<tr>
<td>TIME SAMPLED: 10:45-11:15</td>
<td>MIX DESIGNATION: 3000-C</td>
</tr>
<tr>
<td>SAMPLED BY: Harvey</td>
<td>SIZE OF LOAD: 2</td>
</tr>
<tr>
<td>NUMBER OF CYLINDERS MOLDED: 12</td>
<td>SUPPLIER: AJ Mix</td>
</tr>
<tr>
<td>DATE CYLINDERS RECEIVED: 02/26/03</td>
<td>TIME BATCHED: 10:15 AM</td>
</tr>
<tr>
<td>TRANSPORTED BY: TRUCK NUMBER: 103</td>
<td>FINISH TIME: 3:45 AM</td>
</tr>
<tr>
<td>TICKET NUMBER: 8342</td>
<td>TESTING INSTRUCTIONS: used another</td>
</tr>
<tr>
<td>TYPE OF INSPECTION: Ad3</td>
<td>WATER ADDED ON SITE: 12</td>
</tr>
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</table>

LOCATION OF CONCRETE PLACED: Casson A-3-1, plains region animal habitat

WEATHER CONDITIONS:

PROPERTIES OF FRESH CONCRETE

<table>
<thead>
<tr>
<th>SPECIFICATIONS</th>
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<tbody>
<tr>
<td>CONCRETE TEMPERATURE (ASTM C 1064): 70° 00</td>
</tr>
<tr>
<td>SLUMP (ASTM C 143): 5&quot;-6&quot;</td>
</tr>
<tr>
<td>POST ADDITIVE SLUMP (ASTM C 143): 140-145</td>
</tr>
<tr>
<td>AIR CONTENT BY VOLUME (ASTM C 231): 0.5%-7%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPRESSION TEST RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYLINDER NUMBER</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>123-1-2-9</td>
</tr>
<tr>
<td>123-1-2-2</td>
</tr>
<tr>
<td>123-1-2-3</td>
</tr>
<tr>
<td>123-1-2-4</td>
</tr>
<tr>
<td>123-1-2-5</td>
</tr>
</tbody>
</table>

Average 28 Day Strength: 4210

REMARKS: none
first cage broke
during placement

CYLINDERS PLACED IN A CURE BOX:  □ YES  □ NO

DISTRIBUTION:
CLIENT: Advanced Professional Eng.
ARCHITECT: Cage Construction
ENGINEER: Jungle Jazz Architects
CONTRACTOR: Newt Holdings
SUPPLIER: Major Mix
OTHER: City of Fort Collins

SUBMITTED BY: ____________________________

NOTES:
Types of failure according to ASTM C 056: A = Cone, B = Cone and Split, C = Cone and Shear, D = Shear, E = Columnar, F = Other
Curing Methods: L = Lab Cure; F = Field Cure
N/A = Not Applicable  — Unknown
Cylinders tested in accordance with ASTM C 261, Cylinders molded in accordance with ASTM C 31 when sampled by personnel.
Unit weight listed is for information only and assumes the sample is exactly 6 " x 12", unless otherwise noted.
(This form is printed on letterhead)

Compressive Strength of Concrete Cylinder

Test Method: ASTM C 39, 6 in. Cylinder

Client: Harold Jenkins
Advanced Professional Eng.
363 West Drake, Suite 10
Fort Collins, CO 80526
123-456-7890

Report Date: 11/4/03

Project No.: S91003-24
Project Desc: Fort Collins Zoo - Primate Habitat 1
1222 Colorado St.
Fort Collins, CO 80525

Field Test Conditions and Results

Set Number: 1 Mix Design: 3000-C
Date Cast: 2/28/2003 Supplier: AJ-Mix
Time Cast: 10:45-11:15 Specified Air (%): 123.4
Date Received: 2/28/2003 Specified Strength (psi): 4000
Measured Slump (in.): (AASHTO T 119) 5.5 Ticket Number: 8342
Measured Air (%): 2.3 Cylinders per Set: 12
Concrete Temp (°F): 82° Cylinders Cast By: Harvey
Air Temp (°F): 54°
Liquid Added On Site: 12
Sample Location: Caisson A-3-1, plains regions animal habitat

Compression Test Results

<table>
<thead>
<tr>
<th>Sample No.</th>
<th>Field</th>
<th>Lab</th>
<th>Test Age</th>
<th>Max Load</th>
<th>Cylinder Diameter</th>
<th>Cylinder Area</th>
<th>Strength</th>
<th>Fracture Type</th>
<th>Capping Method*</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-1-2-9</td>
<td>0</td>
<td>0</td>
<td>hold</td>
<td>76000</td>
<td>6.00</td>
<td>28.27</td>
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<td>LC</td>
<td>116</td>
<td>D:</td>
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<td>LC</td>
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<td>28</td>
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<tr>
<td>123-1-2-5</td>
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<td>28.27</td>
<td>4140</td>
<td>LC</td>
<td>B</td>
<td></td>
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</table>


Break Remarks: D: The test result projects that the specified strength may not be met at the specified age according to a typical strength age relationship.
E: The average 7-day test projects the specified strength may not be met at the specified age according to a typical strength age relationship.
J: However the cylinder was field cured longer than recommended by ASTM C 31. Thus, the test results may not be indicative of the in-place concrete.

General Remarks: none
first cage broke

Copies to: Cage Construction
              Jungle Jazz Architects
              Newt Holdings
              Major Mix
              City of Fort Collins
              Grandview Metropolitan
              Loethew, Patterson, Smith, Inc.
              Bandelier Consulting
              Hightong Park District
              Intercity Savings and Loan

TYPES OF FRACTURE

A: Cone B: Cone & Split C: Cone & Shear D: Shear E: Columnar

Phillip J. Harcourt
Construction Services Manager
CONCRETE INSPECTION REPORT

Client: Advanced Professional Eng.
363 West Drake, Suite 10
Fort Collins, CO 80526

Project: Port Collins Zoo - Primate Habitat 1
1222 Colorado St.
Fort Collins, CO 80525

Date Placed: 2/28/2003
Sampled By: Harvey
Concrete Mixture Designation: 3000-C
Tests performed according to: ASTM C 39

Design Strength (PSI): 4000 @ 28 DAYS
Design Unit Weight (PCF): 140-145

CEMENT: 575 LBS.
WATER REDUCER: 16 OZ.
AIR ENTRAINING: 4.7 OZ.

FINE AGGREGATE: 1195 LBS.
COARSE AGGREGATE: 1914 LBS.
WATER: 233 LBS.

FIELD DATA
Location of Placement: Caisson A-3-1, plains regions animal habitat

Slump (inches): 5.5
Concrete Temp (°F): 82°
Air Content (%): 2.3
Unit Weight (PCF): 145

Truck/Ticket No.: 103
Water Added: 12
Total Cubic Yards Placed: 2
Specimen Type: 6 Cylinder
Weather:

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Test Age (Days)</th>
<th>Total Force (Pounds)</th>
<th>Compressive Strength (PSI)</th>
<th>Design Strength (PSI)</th>
<th>Type of Fracture</th>
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Remarks: first cage broke setting, used another

CC:
- Cage Construction
- Jungle Jazz Architects
- Newt Holdings
- Major Mix
- City of Fort Collins
- Grandview Metropolitan
- Loehwe, Patterson, Smith, Inc.
- Bandolier Consulting

Project Engineer
<table>
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<tr>
<th>SPECIMEN NUMBER</th>
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<th>AGE AT TEST (DAYS)</th>
<th>AVERAGE DIAMETER (inch)</th>
<th>AVERAGE LENGTH (inch)</th>
<th>MAXIMUM LOAD (lb)</th>
<th>AVERAGE AREA (inch²)</th>
<th>COMpressive STRENGTH (PSI)</th>
<th>FAILURE TYPE</th>
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<td>117100</td>
<td>28.27</td>
<td>4140</td>
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</tbody>
</table>

SPEC STRENGTH 4000psi @ 28 DAYS (AASHTO T 23)
CEMENT CONTENT CC lbs/yd³ TYPE CT
POZZOLAN CONTENT PC lbs/yd³ TYPE PT
MAXIMUM SIZE AGGREGATE 1.5 in
BATCH TIME 10:15 AM
ADMIXTURES Ad1
Ad2
10/27/2003
AD4
Ad5
SUPPLIER AJ-Mix
MIX NO 3000-C
TRUCK NO 103
TICKET NO 8342
LOAD VOL. 2 yd³ CUM VOL. CVyd³
WATER ADDED 12 gal AUTH. BY 6 in.

CONCRETE TEMPERATURE 82 °F (ASTM C 39)
MEASURED SLUMP 5.5 inch (AASHTO T 141)
MEASURED AIR 2.3 % (AASHTO T 119)
PLASTIC DENSITY 123.4 lb/ft³ (AASHTO T 152)
CAST TIME 10:45-11:15 CAST BY Harvey
CURING CONDITIONS 39159B MOLD TYPE MT
INITIAL CURING TEMP. MAXIMUM 99 °F MINIMUM 88 °F
LOCATION Caisson A-3-1, plains regions animal habitat loc3
COMMENTS none
first cage broke during placement used another

PER. ___________________________

Oct 27, 2003

Reporting of these test results constitutes a testing service only. Engineering interpretation or evaluation of test results is provided only on written request.
Report of Compressive Strength Tests

Project Name: Fort Collins Zoo - Primate Habitat 1
Project Location: 1222 Colorado St.
Client: Advanced Professional Eng.
Project Number: S91003-24

Weather:
Ambient Air Temp (°F): 54°
Sampled By: Harvey
Concrete Supplier: AJ-Mix

Placement Properties

Sample Date: 6/14/2003
Time Batched: 10:15 AM
Slump (in.): 5.5
Set: 1 of 12 Specimens
Design Strength: 4000
Placement Location: Adj 78, 92

Truck Number: 103
Time Sampled: 3:45 AM
Air Content (%): 2.3
Quantity of Concrete: 2 of CV
Mix Number: 3000-C
Ticket Number: 8342
Unit Weight (pcf): 145
Concrete Temp (°F): 82°

Compressive Strength
6x12 cylinder

Compressive Tests Performance (ASTM C39, C109)

<table>
<thead>
<tr>
<th>Cylinder ID</th>
<th>Ave. Diameter (in)</th>
<th>Cross Sectional Area (sq in)</th>
<th>Date Tested</th>
<th>Maximum Load (lbs)</th>
<th>Unit Load (psi)</th>
<th>Age (days)</th>
<th>Percent of Design</th>
<th>Fracture Type</th>
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Remarks: Cloudy, breezy, no precip
first cage broke setting, used another
consolidated to 4 foot depth
using low rpm vibrator

Respectfully submitted:
Garrett Green
REPORT OF CONCRETE STRENGTH TEST
Licensee Company Name
Fort Collins Zoo - Primate Habitat 1
Report Date: 11/4/03

Project Number: S91003-24
Project: Fort Collins Zoo - Primate Habitat 1
Client: Advanced Professional Eng.
Address: 363 West Drake, Suite 10
Fort Collins, CO 80526
Attn: Harold Jenkins

FIELD TEST CONDITIONS AND RESULTS

Date Sampled: 2/28/2003
Date Placed: 2/28/2003
Location of Sample: Caisson A-3-1, plains regions animal habitat
Supplier: AJ-Mix
Truck Number: 103
Ticket Number: 8342
Mix Number: 3000-C
Design Strength: 4000
Time Batched: 10:15 AM
Batch Size: 2
Slump: 5.5
Concrete Temp: 82°
Time Placed: 10:45-11:15
Water Added: 12
Air Content: 2.3
Ambient Temp: 54°

COMPRESSION TEST RESULTS

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Test Date</th>
<th>Age</th>
<th>Load</th>
<th>Diameter</th>
<th>Area</th>
<th>Strength</th>
<th>Percent of Design</th>
<th>Type of Fracture</th>
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<td>76000</td>
<td>6.00</td>
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<td>J:</td>
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<td>4140</td>
<td>104%</td>
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Remarks: none
first cage broke
during placement
used another

Types of Fracture:
A: Cone
B: Cone & Split
C: Cone & Shear
D: Shear
E: Columnar

Reported by: ____________________

Report Note 2
Report of Compression Test Results

Client: Advanced Professional Eng., 303 West Drake, Suite 10, Fort Collins, CO 80526 123-456-7890 Mr. Joe Smith
Attn: Harold Jenkins

Date of Report: October 27, 2003
Project #: S91003-24
Project Name: Fort Collins Zoo - Primate Habitat 1
Project Address: 1222 Colorado St., Building Permit Fort Collins, CO 80525
Contractor: DDD AAA NNN

Specimen Type: CONCRETE ASTM C 39
Sampling and Curing performed in substantial accordance with: ASTM C 172 and C 311/31M

Mix and Field Data

Sample ID Number: 1
Report Number: Ad1
Date Cast: 2/28/2003
Date Received: 2/28/2003
Placement: 10/27/2003

AD1
Strength (fc): 4000 psi @ 28 days
Mix I.D. No.: 3000-C
Supplier: Al-Mix
Load #: 103
Ticket #: 8342
Plant #: CV
Batch size: 2
Water: 12
Admixtures: Ad1
Ad2

Inspector: Harvey
Slump (inches) ASTM C 143: 5.5 5'-6'
Air Content (%): ASTM C 231: 2.3 6%-7%
Unit Weight (pcf) ASTM C 138: 145 140-145
Concrete Temp. (°F) ASTM C 1064: 82° 70-90°
Ambient Temp. (°F): 54° N/A

Remarks: none
first cage broke
during placement
used another

Time
Batch Time: 10:15 AM
Sample Time: 3:45 AM
Finish Time: MT

Test Result

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<th>Sample ID</th>
<th>Specimen</th>
<th>Date Cast</th>
<th>Date Tested</th>
<th>Age (days)</th>
<th>Nominal Specimen Size</th>
<th>Actual Area (sq in)</th>
<th>Compressive Strength (psi)</th>
<th>Type of Fracture</th>
<th>% of Required</th>
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Break Types - (Cn) Cone, (CSp) Cone Split, (CSh) Cone Shear, (Sh) Shear, (Co) Columnar

Reviewed by: ____________________________

Distribution

Harold Jenkins Cage Construction Jungle Jazz Newt Holdings Major Mix
REPORT OF CONCRETE CYLINDER COMPRESSION TESTS

PROJECT NO.: S91003-24
PROJECT: Fort Collins Zoo - Primate Habitat 1
CLIENT: Advanced Professional Eng.
CONTRACTOR: Atlas Construction
SUPPLIER: AJ-Mix

DATE CAST: 2/28/2003

MIX DATA

DESIGN STRENGTH (Project Plans): 4000
DESIGN SLUMP (Project Plans): 5-6"

DESIGN STRENGTH (Delivery Ticket): 3000
DESIGN SLUMP (Delivery Ticket): 5
DESIGN MIX CODE (Delivery Ticket): 3000-C

UNIT WEIGHT: 140-145
TYPE OF MORTAR: 3000C
ADMIXTURES: 
WATER: 
CEMENT: 
FINE AGGREGATE: Sand
COARSE AGGREGATE: ASTM C67

LOCATION OF POUR: Caisson A-3-1, plains regions animal habitat
WEATHER: 
TRUCK NO./TICKET NO.: 103
DRUM REVO. AT ARRIVAL: 78
DRUM REVO. AFTER WATER: 92
DISP./TEST TIME: 11:24 am
CYLINDERS MADE BY: Harvey

CYLINDER DATA

CYLINDER SIZE: 6
SLUMP: 5.5
AIR CONTENT: 2.3
CONCRETE TEMP.: 80°
UNIT WEIGHT: 145
PICKED UP BY: Ad2

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<th>AGE, DAYS</th>
<th>LABORATORY NUMBER</th>
<th>DATE REC'D</th>
<th>DATE OF TEST</th>
<th>CRUSHING, LOAD LBS.</th>
<th>PSI</th>
<th>FRACTURE</th>
<th>REPORT DATE</th>
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FRACTURE CODE: C-CONE, CSF-CONE & SPLIT, CSH-CONE & SHEAR, S-SHEAR, COL-COLUMNAR

CC: Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix
City of Fort Collins

REMARKS: Cloudy, breezy, no precip
first cage broke setting, used another
consolidated to 4 foot depth
using low rpm vibrator

ORIGINAL SIGNED BY: ____________________________
REPORT OF CONCRETE SPECIMEN TEST DATA
REPORT DATE: 10/24/03

PROJECT DATA

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<td>Advanced Professional Eng.</td>
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<td>Attention</td>
<td>Harold Jenkins</td>
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FIELD TEST RESULTS

| Date Sampled  | 2/29/2003 |
| Sample Location | Caisson A-3-1, plains reg |
| Placement Method | Pump | Bucket/Crane X |
| Truck Chute | Other |
| Number of Rev. on Truck Counter: IDID | 124 |
| Sampled From Mixer Truck: | First | Middle X | End X |
| Date Rec. of Concrete | 2/29/2003 |
| Units: | English |
| Mix Design Name | 3000 C |
| Design Strength | 4000 |
| Time Batched | 10:15 AM |
| Time Sampled | 3:45 AM |
| Batch Size | 2 |
| slump | 5.5 |
| Concrete Temp | 82°F |
| Water Added Before Specimens Cast | 12 |
| Water Added After Specimens Cast | Ad1 |

LABORATORY TEST RESULTS

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<th>As Received Specimen Weight/Mass</th>
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Remarks: none
First cage broke during placement used another

Copies To:
- Cage Construction
- Jungle Jazz Architects
- Next Holdings
- Mayor Mix
- City of Fort Collins

Reported by: ________________________________

TYPES OF FRACTURE

- A: Cone
- B: Cone & Split
- C: Cone & Shear
- D: Shear
- E: Columnar
**CLIENT:** Advanced Professional Eng  
**PROJECT:** Fort Collins Zoo - Primate Habitat 1  
**ADDRESS:** 363 West Drake, Suite 10  
**LOCATION IN STRUCTURE:** Caisson A-3-1, prime regions animal habitat  
**SOURCE OF SAMPLES:**  
**CONTRACTOR:** Hegging International  
**ARCH/ENGINEER:** Ac5  
**MATERIAL SUPPLIER:** AJ-Mix  
**BATCH SIZE:** 2  
**CUBIC YARDS:** 123.4  
**MIX IDENTIFICATION:** 3000-G  
**MEASURED SLUMP:** 5.5 in.  
**AIR CONTENT:** 2.3%  
**AMBIENT AIR TEMP.:** 54°F  
**MATERIAL TEMP.:** 82°F  
**DESIGN STRENGTH, PSI:** 4000  
**DAYS:** 28  
**PLASTIC UNIT WEIGHT, PCB:** 145  
**NOMINAL SIZE:** AD4  
**AGGREGATE:** SOURCE  
**NO. OF SPECIMENS MOLDED:** 12  
**TIME SAMPLED:** 3:45 AM  
**SPEICMEN SIZE:** 6 in.  
**FIELD CURING CONDITIONS:** ASTM C-3139159B  
**SAMPLED BY:** Harvey  
**DATE:** 2/28/2003  
**TIME IN MIXER:**  
**SUBMITTED BY:** 103  
**DATE:** 2/28/2003  
**WATER ADDED ON JOE (GALLONS):** 12  
**AUTHORIZED BY:** CLIENT  
**DATE:** 10:45-11:15  
**TEST PROCEDURE:** (AASHTO T 23)  
**REMARKS:** none  
  first cage broke

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COMPRESSIVE STRENGTH TEST REPORT

CLIENT: Advanced Professional Eng.  
363 West Drake, Suite 10  
Fort Collins, CO 80526

PROJECT NAME: Fort Collins Zoo - Prima  
1222 Colorado St.  
Fort Collins, CO 80525

DATE CAST: 2/28/2003  
TECHNICIAN: Harvey

SAMPLE LOCATION: Caisson A-3-1, plains regions animal habitat

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<th>AGE (Days)</th>
<th>LOAD (lbs)</th>
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NOTE: Some information on this test report provided by others. Testing and reporting was conducted in general accordance with the following applicable A.S.T.M. references: C31, C110, C138, C143, C172, C173, C231, C495, C1019 & C1064

Supplier: RAJ-Mix  
Truck No.: 3103  
Ticket No.: 8342  
Design Str.: 4000 psi  
Product No.: 3000-C

Sample Time: 8:45 AM  
Concrete Temp.: 62°F  
Ambient Temp.: 66°F  
Slump: 5.5 in.

Air Content: 2.3%  
Unit Weight: 145pcf  
Field Cured: 2 day(s)  
Sample Type: Cylinder  
Sample Size: 6 in. dia.

REMARKS:
none
first cage broke during placement
used another

Copies To:
Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix
City of Fort Collins
Grandview Metropolitan

By: ____________________________

Assignment No. 1

NOTICE: Any person or entity that considers the data and information contained in this report to be proprietary. This information is intended only for the use of the recipient(s) named herein. Test results presented herein relate only to those items tested. This document and any information contained herein shall not be disclosed and shall not be duplicated or used in whole or in part for any purpose other than to validate test results without written approval from ____________________________.
Compressive Strength Report

Client: Advanced Professional Eng.
363 West Drake, Suite 10
Fort Collins, CO 80526

Project: Fort Collins Zoo - Primate Habitat
Contractor: Dolittle and Bucksworth, Inc.
Technician: Harvey

Attn: Harold Jenkins

Project No: 891003-24
Report No: 1
Report Date: 2/6/04

Mix Design Specifications
Mix I.D.: 3000-C
Cement, lbs.: 
Fly Ash, lbs.: 
Coarse Aggregate, lbs.: 
Sand, lbs.: 
Water, lbs.: 
Admixtures, lbs.: 
AEA, oz/cwt.: 

Material: high slump concrete
Design Strength at 7 days: 2000 psi
Date Received: 3/28/2000
Material Supplier: AJ-Mix
Delivery Ticket No.: 8342 Truck No.: 103
Sample Date: 2-28-00 Sample Time: 11:00 AM
Comments: used chute to tremie funnel and 10 ft long 8" dia rubber tube tremie

FIELD TESTS

Test: Slump, in. | Air Content, % | Material Temperature, °F | Ambient Temperature, °F | Plastic Unit Weight,pcf
Result: 5.5 | 2.3 | 82 | 54 | 145
Specification: 5-6 in | 6-7% | 85 | | 140-145 pcf

Placement Area: Caisson A-2-1 plains regions animal habitat exterior wall

LAB TESTS

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<th>Age</th>
<th>Load</th>
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Comments: Cloudy, breezy, no precip
first cage broke setting, used another

Distribution: Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix

Reviewed by: Sam Purfii
Materials Manager

TYPES OF FRACTURES
A Cone
B Core & Split
C Core & Shear
D Diver
E Columnar
**COMPRESSION STRENGTH TEST RESULTS**

**PROJECT DATA**

- **PROJECT NAME:** Fort Collins Zoo - Primate Habitat 1
- **PROJECT NO.:** S91003-24
- **PROJECT ADDRESS:** 883 West Drake, Suite 10, Fort Collins, CO 80528
- **CLIENT:** Advanced Professional Eng.
- **GENERAL CONTRACTOR:** DBPN

**POUR DATA**

- **DATE OF POUR:** 02/28/03
- **TIME OF DAY:** 9:00 am
- **MIXING TIME:**
- **LOCATION OF POUR:** Monkey platform
- **DATE OF PICKUP:** 03/03/03

**DESIGN DATA**

- **MIX NO.:** BM-3
- **CEMENT TYPE:**
- **WEATHER CONDITIONS:**

**FIELD DATA**

- **ADMIXTURES:**
- **SUPPLIER:** on site mix
- **FLOW (Inch):**
- **TRUCK NO.:**
- **TICKET NO.:**
- **DESIGN STRENGTH (ps):** 3000
- **AIR CONTENT (%):** 2
- **FLOW (Inch):** 1
- **FIELD TECHNICIAN/SPECIAL INSPECTOR:** Sue Purtel
- **GROUT TEMP (degree F):** 3
- **MARK OF SPECIMEN:** 9
- **WATER ADDED (gal):**
- **NO. OF SPECIMEN:** 6

**LABORATORY DATA (ASTM C 109)**

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<th>AGE OF SPECIMEN (day)</th>
<th>SPECIMEN DIMENSIONS (avg. in.)</th>
<th>GROUT DENSITY (pcf)</th>
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**Average 28 Day Strength**

- **Yes**
- **No**

Sampling and testing were conducted in accordance with the requirements of the DSA approved plans and documents.

- **Yes**
- **No**

I performed inspection on this project for the dates and time shown herein, and I have found the materials inspected and tested in conformance with DSA approved plans and specifications.

**REMARKS:**

- r1
- r2

**REVIEWED BY:**

- N/A = NOT AVAILABLE
- FRACTURE TYPE
  - (A) Conical
  - (B) Cone & Spilt
  - (C) Cone & Shear
  - (D) Shear
  - (E) Columnar

**C.C. = Cage Construction, Jungle Jazz Architects, Newt Holdings, Major Mix, City of Fort Collins, SEVENTH CC**
REPORT OF CONCRETE CYLINDER TEST

Project Number: S91003-24
Project: Fort Collins Zoo - Primate Habitat 1
Client: Advanced Professional Eng.
General Contractor: Sanger & Peltion, Inc.

Report Number: 1
Concrete Contractor: Hegering International
Concrete Supplier: AJ-Mix

FIELD TEST CONDITIONS AND RESULTS (AASHTO T 23)

Date Placed: 2/28/2003
Location of Sample: Caisson A-3-1, plains regions animal habitat

Truck Number: 103
Design Strength: 4000
Cement content: CC
Water: PC
Other:
Admixtures: Admix 1 90123456789012
Admix 2 90123456789012

Ticket Number: 8342
Fine Agg: z
Coarse Agg: z

Time Batched: 10:15 AM
Batch Size: 2
Slump: 5.5 (AASHTO T 119)
Concrete Temp: 82°
Water Added: 39159B

Time Placed: 10:45-11:15
Pour Quantity: 6 in.
Air Content: 2.3 (AASHTO T 152)
Ambient Temp: 54°
Technician: Harvey

On-Site Curing Box: Not Available
X Available
Insulated: X
Heated: Cooled
Max/Min Thermometer: Laboratory curing in accordance with ASTM C31. Unless noted otherwise, test cylinders are 6" x 12" (28.27 sq. in.)

LABORATORY TEST RESULTS (ASTM C 39)

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<td>120300</td>
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<td>28.27</td>
<td>4255</td>
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<td>117100</td>
<td>6.00</td>
<td>28.27</td>
<td>4140</td>
</tr>
</tbody>
</table>

Remarks: none
first cage broke
(fracture is std. cone unless noted otherwise)

Copies to:
Jungle Jazz Architects
Newt Holdings
Major Mix
City of Fort Collins
Grandview Metropolitan

Reported by: ____________________________
REPORT OF CONCRETE CYLINDER TEST
Fort Collins Zoo - Primate Habitat I
Report Date: 11/4/03

Project Number: S91003-24
Project: Fort Collins Zoo - Primate Habitat I
Client: Advanced Professional Eng.
Address: 363 West Drake, Suite 10
Fort Collins, CO 80526
Attn: Harold Jenkins

FIELD TEST CONDITIONS AND RESULTS (AASHTO T 23)

Date Placed: 2/28/2003
Time Sampled: 3:45 AM
Supplier: AJ-Mix
Location of Sample: Caisson A-3-1, plains regions animal habitat
Ticket Number: 8342
Mix Number: 3000-C
Design Strength: 4000
Time Batched: 10:15 AM
Batch Size: 2
Slump: 5.5 (AASHTO T 119)
Concrete Temp: 82°
Water Added: 12

Air Content: 2.3 (AASHTO T 152)
Ambient Temp: 54°
Technician: Harley

LABORATORY TEST RESULTS (ASTM C 39)

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Test Date</th>
<th>Age</th>
<th>Load</th>
<th>Diameter</th>
<th>Area</th>
<th>Strength</th>
<th>Percent of Design</th>
<th>Type of Fracture</th>
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<tbody>
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<tr>
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<td>6.00</td>
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<td>B</td>
</tr>
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<td>4140</td>
<td>104%</td>
<td>B</td>
</tr>
</tbody>
</table>

Lab Technician:
Remarks: none
first cage broke
during placement
used another

TYPES OF FRACTURE
A Cone
B Cone & Split
C Cone & Shear
D Shear
E Columnar

Copies to:
Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix
City of Fort Collins
Grandview Metropolitan

Reported by:
Report Note 2
# COMPRESSION TEST REPORT ASTM C 39

**Report to:** Advanced Professional Eng.  
**ATTN:** Harold Jenkins  
363 West Drake, Suite 10  
Fort Collins, CO 80526  
123-456-7890  
**Date:** 10/27/03  
**Project No.:** S91003-24

**Project Name:** Fort Collins Zoo - Primate Habitat  
1222 Colorado St.  
Fort Collins, CO 80525  
**Mix Design No.:** 3000-C  
**Supplier:** AJ-Mix  
**Design Strength:** 4,000 psi

**Location in Structure:**  
Caisson A-3-1, plains regions animal habitat  
**Specimen:** CONCRETE  
**loc3**  
**Air Temp. 54° F**  
**Mix Temp. 82° F**  
**Measured Slump: 5.5 in.**  
**AASHTO T106**

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<td>Age at Test, days</td>
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<td>Diameter, in.</td>
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<td>Height, in.</td>
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<td>12</td>
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<td>Utl. Load, lbs.</td>
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<td>Comp. Str., psi</td>
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<td>3470</td>
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<td>Fracture Type</td>
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- [ ] Meets 28 day strength req.  
- [X] Fails to Meet 28 day str. req.  
- [ ] No strength req. given  
- [X] Cast by  
- [ ] Cast by others

**Remarks:** none  
first cage broke during placement used another

**Copies to:**  
Cage Construction  
Jungle Jazz Architects  
Newt Holdings  
Major Mix  
City of Fort Collins  
Grandview Metropolitan  
Loethew, Patterson, Smith, Inc.

**TYPES OF FRACTURE**

A Cone  
B Cone & Split  
C Cone & Shear  
D Shear  
E Columnar

Reviewed by: ____________________________
CONCRETE REPORT

General
Placement Date: 2/28/2003
Technician: Harvey
Weather:
Mix Number: 3000-C

Specifications
Strength: 4000 psi@ 28 days
Concrete Temp: 70-90°F

Services: none
first cage broke
during placement
used another

Slump: 5"-6"
Air: 6%-7%

Placement Information
Sample Location: Caisson A-3-1, plains regions animal habitat

Concrete Supplier: AJ-Mix
Truck Number: 103
Ticket Number: 8342
Slump: 5.5 inches (AASHTO T 119)
Air Temp: 54° F
Concrete Temp: 82° F
Air Content: 2.3 % (AASHTO T 152)
Unit Weight: 145 pcf (AASHTO T 152)
Time Sampled: 3:45 AM

Compressive Strength Results (ASTM C 39)

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<th>Maximum Load, lbs</th>
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<th>Compressive Strength, psi</th>
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<td>6.00</td>
<td>117100</td>
<td>B</td>
<td>4140</td>
</tr>
</tbody>
</table>

Copy To:
   Cage Construction
   Jungle Jazz Architects
   Neve Holding
   Major Mix
   City of Fort Collins
   Granview Metropolitan
   Loethewe, Patterson, Smith, Inc.

Comments:
The average 28 day strength is 4205 psi which

Failure Code a) cone; b) cone & split; c) cone & shear; d) shear; e) columnar

Our report is for the exclusive use of the client to whom they are addressed and apply to the samples tested.
Results are not necessarily indicative of the quality of apparently identical or similar samples.
REPORT OF CONCRETE CYLINDER TEST

Project Number: S91003-24
Project: Fort Collins Zoo - Primate Habitat 1
Client: Advanced Professional Eng.
Address: 363 West Drake, Suite 10
Fort Collins, CO 80526
Attn: Harold Jenkins

FIELD TEST CONDITIONS AND RESULTS (AASHTO T 23)

Date Placed: 2/28/2003
Time Sampled: 3:45 AM
Location of Sample: Caisson A-3-1, plains regions animal habitat
Supplier: AJ-Mix
Ticket Number: 8342
Mix Number: 3000-C
Design Strength: 4000 psi
Specimen Size: AB
Slump: 5.5 in. (AASHTO T 119)
Air Content: 2.3 % (AASHTO T 152)
Concrete Temp: 82° °F
Ambient Temp: 54° °F
Water Added: 12 gal.
Technician: Harvey

LABORATORY TEST RESULTS (ASTM C 39)

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Test Date</th>
<th>Age</th>
<th>Load</th>
<th>Diameter</th>
<th>Area</th>
<th>Strength</th>
<th>Percent of Design</th>
<th>Type of Fracture</th>
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<tbody>
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<td>6.00</td>
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<td>28.27</td>
<td>4140</td>
<td>104%</td>
<td>B</td>
</tr>
</tbody>
</table>

Meets Specified Strength: ☑ Yes ☒ No
Meets DOH Approval Documents: ☐ Yes ☑ No

28-day Average Strength: 4205

Remarks: Cloudy, breezy, no precip
first cage broke setting, used another
3rd remark
4th remark

Types of Fracture

A Cone
B Cone & Split
C Cone & Shear
D Shear
E Columnar

Reported by: ____________________________
Concrete Laboratory Supervisor

Copies to:
Cage Construction
Jungle Jazz Architects
Newc Holdings
Major Mix
City of Fort Collins
Sixth CC
## COMPRESSION STRENGTH TEST RESULTS

### PROJECT DATA

<table>
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<tr>
<th>PROJECT NAME:</th>
<th>Fort Collins Zoo - Primate Habitat</th>
<th>PROJECT NO:</th>
<th>S01003-24</th>
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<tr>
<td>PROJECT ADDRESS:</td>
<td>363 West Drake, Suite 10, Fort Collins, CO 80528</td>
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<tr>
<td>CLIENT:</td>
<td>Advanced Professional Eng</td>
<td></td>
<td></td>
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<tr>
<td>REPRESENTATIVE:</td>
<td>Pmt.</td>
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</tbody>
</table>

### POUR DATA

| DATE OF POUR: | 02/29/03 |
| DATE OF PICKUP: | 03/03/03 |
| LOCATION OF POUR: | Caisson A-3-1, plains regions animal habitat |
| TIME OF DAY | 10:45-11:15 |
| MIXING TIME | MT |

### DESIGN DATA

| MIX NO: | 3000-C |
| CEMENT TYPE: | 3000C |
| WEATHER CONDITIONS: | Approxi. Yards placed at Time of Sampling: 2 |
| ADMIXTURES: | Approx. Yards placed at Time of Sampling: 2 |
| SUPPLIER: | AI-Mix |
| TRUCK NO: | 103 |
| DESIGN STRENGTH [psi]: | 4000 |
| AIR CONTENT [%]: | 2.3 |
| SLUMP (inch): | 5.5 |
| FIELD TECHNICIAN/SPECIAL INSPECTOR: | Harvey |
| CONCRETE TEMP (degree F): | 82 |

### FIELD DATA

| MARK OF SPECIMEN: | 1 |
| WATER ADDED (gal): | 12 |
| NO. OF SPECIMEN: | 12 |

### LABORATORY DATA (ASTM C 39)

<table>
<thead>
<tr>
<th>SPECIMEN NO</th>
<th>DATE OF TEST</th>
<th>AGE OF SPECIMEN (day)</th>
<th>SPECIMEN DIMENSIONS (avg. in.)</th>
<th>CONCRETE DENSITY (pcf)</th>
<th>COMPRRESSIVE STRENGTH TOTAL LOAD LBS</th>
<th>LBS SQ IN</th>
<th>TYPE OF FRACTURE</th>
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<td>28.27</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Average 28 Day Strength: 4210

### REMARKS:
- Cloudy, breezy, no prep
- Thr. cago broke setting, used another

### REVIEWED BY:

- CC: Cage Construction
- N/A = NOT AVAILABLE
- FRACTURE TYPE
  - (A) Corroded
  - (B) Cone & Split
  - (C) Cone & Shear
  - (D) Shear
  - (E) Columnar

- Jungle Jazz Architects
- Newl Holdings
- Major Mix
- City of Fort Collins
- Sixth CC
- SEVENTH CC
CONCRETE DATA AND TEST REPORT

Client: Advanced Professional Eng.  Project No: S91003-24
Contract No: DDD AAA NNN  Set No.: 1

Project: Fort Collins Zoo - Primate Habitat 1
Contractor: DEPN

PLACEMENT IDENTIFICATION

Structure: 
Location: Caisson A-3-1, plains regions animal habitat

Sample Location: loc3
Total Cubic Yards Placed: 2  Yards at Time of Sampling: IDID

CONCRETE MIX DATA

Supplier: AJ-Mix
Truck/Ticket Number: 103  Time Batched: 10:15 AM
Concrete Mix Design: 3000-C  Type of Cement: CT
Cement Content: CC  Aggregate Size: PT
Admixtures: Ad1  Water Added: 12

Design Strength: 4000  PSI at 28 Days

TEST RESULTS

Sample Date: 02/28/03  Sample Time: 3:45 AM
Sampled By: Harvey
(AASHTO T 141)
Slump: 5.5 Inches  (AASHTO T 119) Air Content: 2.3 %  (AASHTO T 152)
Temperature: Air: 54°F  Concrete: 82°F  (ASTM C1064)
Field Curing: Days  Field Cure Temp.: Max 99°F, Min 88°F

COMPRESSIVE STRENGTH (ASTM C 39)

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<tr>
<th>Specimen No.</th>
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<th>Age Days</th>
<th>Load Lbs</th>
<th>Diameter Inches</th>
<th>Area Sq.In.</th>
<th>Strength PSI</th>
<th>Type of Failure</th>
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<td>123-1-2-6</td>
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<td>117100</td>
<td>6.00</td>
<td>28.27</td>
<td>4140</td>
<td>S9</td>
</tr>
</tbody>
</table>

Defects in Specimens: none
Remarks: first cage broke during placement
Reported by: ____________________________  Gregory N. Chant
Operations Manager

Dist:
Cage Construction  Major Mix
Jungle Jazz Architects  City of Fort Collins
Newt Holdings  Sixth CC

☐ Conforms to Specifications  X Does Not Conform to Specifications
LABORATORY TEST REPORT
COMpressive STRENGTH of CYLINDRICAL CONCRETE SPECIMENS
AASHTO T 22

CLIENT: Advanced Professional Eng.
369 West Drake, Suite 10
Fort Collins, CO 80526

REPORT DATE: 10/24/03

PROJECT: Fort Collins Zoo - Primate Habitat 1
1222 Colorado St.

ATTN: Harold Jenkens
PROJECT NO: S81003-24

SAMPLE INFORMATION

Set No.: 1
Date Sampled: 2/28/2000
Date Received: 3/2/2000
Submitted By: 10:45 AM
Contractor: Hagering International

Water Added: 12 gallons
Ticket No.: 6342
Truck No.: 103
Batch Size: 2 cy. yds.
Time Batched: 10:15 AM
Time in Mixer: MT min.

Slump, (ASTM C 143), in.: 5.5
Unit Wt.,pcf: 145
Dry Unit Wt.,pcf: 3915.9B
Relative Yield, %: 123.4
Air Content, %: 99
Air Content, (ASTM C 179), %: 2.3
Mix Temp., F: 92*
Ambient Temp., F: 54*

Sample Location: Caisson A-3-1, plains region animal habitat

MIX INFORMATION

Supplier: AI-Mix
Admixtures: 
Mix Number: 3000-C
Cement Factor:
Max. Agg. Size: 3000C
Design Strength: 4000 in 28 days

LABORATORY TEST RESULTS

<table>
<thead>
<tr>
<th>Specimen #</th>
<th>Date Tested</th>
<th>Age, Days</th>
<th>Diameter, in</th>
<th>Height, in</th>
<th>Area sq.in</th>
<th>Maximum Load, lbs</th>
<th>Compressive Strength, psi</th>
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<th>% of Required</th>
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Average 28 day strength: 4235 psi
Average 28 day strength: 29.0 MPa

Comments: none
first cage broke
during placement
used another

Reviewed by: ________________________________

Construction Operations Manager
Laboratory test results represent the area tested at the time of sampling. This report is not considered to be a guarantee, certificate, or an acceptance document of any kind. The person(s) performing testing in accordance with the above referenced test method(s)
REPORT OF CONCRETE CYLINDER TEST
(AASHTO T 23)

Client: Advanced Professional Eng.
Address: 363 West Drake, Suite 10
        Fort Collins, CO 80526
Project: Fort Collins Zoo - Primate Habitat 1
         1222 Colorado St.
Project No.: S91003-24
Sample Location: Caisson A-3-1, plains regions animal habitat
Sample Date: 2/28/2003
Sampled By: Harvey
Curing method/notes: 39159B
Supplier: AJ-Mix
Truck/Ticket No.: 103
Design Strength: 4000 psi at 28 Days

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<th>Area in.²</th>
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<td>28.27</td>
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<td>S9</td>
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</tbody>
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Remarks: none
first cage broke
during placement
used another

Associate Test Methods: (ASTM C 30)

Copies to: Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix
City of Fort Collins
Grandview Metropolitan
CONCRETE INSPECTION AND TEST REPORT
ASTM C 39-93A

Advanced Professional Eng.
363 West Drake, Suite 10
Fort Collins, CO 80526
ATTN: Harold Jenkins

Project: Fort Collins Zoo - Primate Habitat 1
Lab Number: 1
Project No: S91003-24
Sample Location: Caisson A-3-1, plains regions animal habitat

Sample Date: 2/28/2003
Tech: Harvey
Number of Specimens: 12
Cu. Yd. Placed: 2

Contractor: Hegering International
Concrete Provider: AJ-Mix
Truck/Ticket Number: 103
Time Sampled: 3:45 AM

Concrete Mix Design: 3000-C
Design Strength: 4000
Slump: 5.5
Air Content: 2.3 ASTM C 173
Ambient Temp: 54°
Concrete Temp: 82° ASTM C 1094
Laboratory Procedure: ASTM C 39
Capping System:

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<th>Age</th>
<th>Load</th>
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<th>Area</th>
<th>Strength</th>
<th>Percent of Design</th>
<th>Type of Fracture</th>
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</table>

Remarks: none
first cage broke
during placement

Copies to:
Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix

The samples tested □ Do ✔ Do Not comply with project specifications.

TYPES OF FRACTURE
A Cone
B Cone & Split
C Cone & Shear
D Shear
E Columnar

Reported by: ________________________________
REPORT OF CONCRETE BEAM TEST
Licensee Company Name
Fort Collins Zoo - Primate Habitat 1

Project Number: S91093-24
Project: Fort Collins Zoo - Primate Habitat 1
Client: Advanced Professional Eng.
Address: 363 West Drake, Suite 10
Fort Collins, CO 80526
Attn: Harold Jenkins

Report Date: 10/14/03
Report Number: 2

FIELD TEST CONDITIONS AND RESULTS (ASTM C 31)

Date Placed: 2/28/2003
Time Sampled: 10:42 AM
Location of Sample: Pachyderm paddock
Supplier: Slow Creek Ready-Mix
Design Strength: 3000
Technician: Jake Break

Truck Number: 103
Ticket Number: 8342
Slump: 5 (ASTM C 143)
Air Content: 6 (AASHTO T 152)
Concrete Temp: 70
Ambient Temp: 50

LABORATORY TEST RESULTS (AASHTO T 97)

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<th>Width</th>
<th>Depth</th>
<th>Span</th>
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<th>Percent of Design</th>
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Remarks: All beams were cast in 24" long molds

Copies to:
Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix
City of Fort Collins

Reported by: ____________________________
Laboratory Manager
Cylinder Compressive Strength
6 in.

Client: Advanced Professional Eng.
Project: Fort Collins Zoo - Primate Habitat 1
Contractor: Sanger & Pettion, Inc.

Mix Number: 3000-C  Specified Strength: 4,000 Lbs/Sq.In. @ 28 Days

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<th>Area, In.²</th>
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<th>Compressive Strength, Psi</th>
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Results □ Comply ☒ Do not comply with specifications ☒ Acceptable under ACI 318-02, Section 5.6.3.3

Notes:
Concrete sampled according to (AASHTO T 23)
Test specimens cast and stored according to (ASTM C 31-00 or 192-00)
Temp of concrete measured according to (AASHTO T 141)
Air content measured according to (AASHTO T 119)
Slump measured according to (AASHTO T 152)
Concrete tested in accordance with Specimens capped in accordance with General Remarks: none
Cage broke during placement
Distribution: Cage Construction
Jungle Jazz Architects
Newt Holdings
Major Mix
City of Fort Collins
Grandview Metropolitan
Loethen, Patterson, Smith, Inc.
Bendix Consulting
Hightsong Park District
Integrity Savings and Loan

Authorized Signature: __________________________
Concrete Laboratory Supervisor

Types of Fracture:

A  B  C  D  E
Cone  Cone & Split  Cone & Split  Shear  Columnar

Rev. 2 - 03/07/2003
CLIENT: Waterling Construction, Inc.
ADDRESS: 2630 Wiseman Lane
           Appleton, IL 6666
PROJECT: ADM Truck Loadout Facility
         Pearville
CONCRETE SUPPLIER: Waterling Construction, Inc.
CONTRACTOR: Waterling Construction, Inc.

ARCHITECT OR ENGINEER:

REPORT OF CONCRETE TEST DATA

LOCATION OF PLACEMENT: West Wall

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<th>REPORT NO.</th>
<th>DESIGN STRENGTH</th>
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<td>JOB MIX</td>
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<td>PER YARD</td>
<td>GALS. PER SK</td>
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<th>FINE AGGREGATE</th>
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<th>COARSE AGGREGATE</th>
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<td>4 Days</td>
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TEST SPECIMENS MADE BY: Client

TESTED BY: J. Sick

President
# REPORT OF CONCRETE COMPRRESSIVE STRENGTH TEST

**REPORT TO:** Harold Jenkins  
Advanced Professional Eng.  
363 West Drake, Suite 10  
Fort Collins, CO 80526  

**PROJECT:** Fort Collins Zoo - Primate  
1222 Colorado St.  
Fort Collins, CO 80525  

**JOB NO:** S91003-24  
**INVOICE NO:** Ad3  
**LOCATION:** Caisson A-3-1, plains regio loc3  

**Date:** 10/27/03

---

## MATERIALS AND BATCH INFORMATION

**SUPPLIER:** AJ-Mix  
**MIX ID:** 3000-C  
**REQUIRED STRENGTH:**

**TIME BATCHED:** 10:15 AM  
**SACKS PER CY:** 123.4  
**7 DAY:** 2000

**BATCH VOLUME (cy):** 2  
**CEMENT:** 123

**ADMIXTURES:** Ad1  
**AGG. SOURCE:**

**TIME CAST:** 3:45 AM  
**AIR CONTENT:** 2.3  
**AIR TEMPERATURE (°F):** 54°

**CURING:** 39159B  
**SLUMP (IN):** 5.5  
**CONCRETE TEMPERATURE (°F):** 82°

**FIELD CURE TEMP. (°F):**

**FIELD TEST BY:** Harvey  
**DATE RECEIVED:** 2/28/2003  
**TRUCK NUMBER:** 103

---

## FIELD TEST DATA

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<th>AGE (DAYS)</th>
<th>DATE TESTED</th>
<th>MAXIMUM LOAD (LBS-FORCE)</th>
<th>AREA (IN²)</th>
<th>COMPRRESSIVE STRENGTH</th>
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<td>28.27</td>
<td>4140</td>
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</tbody>
</table>

---

Remarks: none  
first cage broke  
during placement  
used another

**Copy to:**  
Cage Construction  
Jungle Jazz Architects  
Newt Holdings  
Major Mix  
City of Fort Collins

Reviewed By: ____________________________

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All reports of test results are submitted as confidential property of our client. Any reproduction or publication of partial reports requires our express approval. Samples are disposed of after testing is completed, unless other prior arrangements are made. Test results relate only to the materials actually sampled and tested.
**CONCRETE TEST REPORT**

**Project:** Fort Collins Zoo - Primate Habitat 1  
**Project Number:** 891003-24  
**Client:** Advanced Professional Eng.

**Sample Location:** Caisson A-3-l, plains regions animal habitat

<table>
<thead>
<tr>
<th>Date Sampled:</th>
<th>2/28/2003</th>
<th>Date Received:</th>
<th>2/28/2003</th>
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<tbody>
<tr>
<td>Sampled By:</td>
<td>Harvey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Specimens:</td>
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<td></td>
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<tr>
<td>Supplier:</td>
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<td>Ticket No.:</td>
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<td>Sample Time:</td>
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**Concrete Mix Design:** 3000-C  
**Design Strength:** 4,000 psi

- **Actual Slump:** 5.5 in.  
- **Specified Slump:** 5"-6"  
- **Actual Air Content:** 2.3 %  
- **Specified Air Content:** 6%-7%  
- **Air Temperature:** 54° F  
- **Conc. Temperature:** 82° F  
- **Unit Weight:** 145pcf  
- **Admixtures:** Adi  
- **Gallons Water Added On Site:** 12

<table>
<thead>
<tr>
<th>Sample</th>
<th>Test Date</th>
<th>Age</th>
<th>Load (lbs)</th>
<th>Dia. (in.)</th>
<th>Area (sq. in.)</th>
<th>Strength (psi)</th>
<th>Type of Fracture</th>
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</table>

**Remarks:** Cloudy, breezy, no precip  
first cage broke setting, used another  
3rd remark  
4th remark

**Copies to:**  
Cage Construction  
Jungle Jazz Architects  
Newt Holdings  
Major Mix  
City of Fort Collins  
Sixth CC