

RECEIVED

JAN 3 2012

CITY OF LEE'S SUMMIT ENGINEERING DEPT.

December 29, 2011

Mr. Robert Kutch Emergent Care Plus 2741 NE McBaine Drive Lee's Summit, Missouri 64064

**RE:** Construction Services

**Emergent Care Plus - Primary Care Suite** 

2741 NE McBaine Drive

Lee's Summit, Missouri 64064

Project No. 122792

Dear Mr. Kutch:

In accordance with your request, representatives of Kleinfelder have provided field observation and testing services relating to drilled and epoxied reinforcing steel and anchors, reinforced concrete, structural masonry, structural steel and pavement subgrade for the building addition at the referenced site. Our services were provided on a part-time basis between November 15 and December 23, 2011, as scheduled by representatives of A.L. Huber Construction. The compliance of any materials or work not observed by our personnel cannot be determined by our firm and is not addressed, or implied, by this or any previous report.

# **Summary of Activities**

# Drilled and Epoxied Reinforcing Steel and Anchors

Installation of the drilled and epoxied reinforcing steel into the existing foundation at Grid C-2 was observed. Also, installation of the drill and epoxy anchors for the x-brace framing was observed at Grids H-1, L-1, M-5, M-6 and J-5 per the attached e-mail from John Funk with Hollis and Miller. The hole size, depth, cleanliness, reinforcing steel size, spacing, embedment depth and type of epoxy adhesive used were observed.

#### Reinforced Concrete

Placement of the reinforcing steel within the elevator pit slab and walls was observed. Field tests were performed and compressive strength test specimens cast with concrete sampled from the referenced areas and the ground floor ongrade slab. Results of the recent concrete compressive strength tests are enclosed.

# Structural Masonry

Placement of the grout and reinforcing steel within the elevator shaft structural masonry walls was observed from 0 to 8 feet and 20 to 24 feet in elevation. Field tests were performed and compressive strength test specimens cast with grout placed in the referenced walls. Block prisms were also constructed by the mason using block and mortar from the referenced walls. Results of the recent compressive strength tests are enclosed.

## Structural Steel

The bar joist end bearing field welded connections and high strength bolted connections between Lines C-M, 1-6 within the second floor structural steel framing for the proposed building were observed.

# Pavement Subgrade

On December 9, the exposed subgrade within the parking lot for the proposed building addition was observed. The subgrade was proofrolled using a loaded tandem-axle dump truck and was evaluated with respect to stability and moisture content.

#### **Corrected Variances**

## Pavement Subgrade

During proofrolling of the pavement subgrade, two isolated areas of soft soils were observed. The soft soils extended to a depth of approximately 12 inches in an area in the northwest corner of the parking lot and to approximately 5 inches in the southeast corner of the lot. The soft soils were over-excavated to expose stiff clay soils and backfilled with crushed limestone gravel.

# Status of Compliance

The specific items discussed above in this report appeared to be in general compliance with contract documents.

The results of our field observations and testing were reported to the authorized field personnel during our site visits. If you have any questions regarding this report, or if we may be of further service, please contact us.

Respectfully submitted,

**KLEINFELDER** 

Stewart L. Legg Project Manager Steve Wendland, P.E., R.G. Missouri: 2000154306

NUMBER

WENDLAND 12/29/11

SLL/SAW:ksb

Mr. David Esely – Hollis and Miller (e-mail)

Mr. Keith Dorrian – A.L. Huber (e-mail)

City of Lee's Summit, Missouri

RE: Bolt fix Page 1 of 1

# **RE:** Bolt fix

John Funk [JFunk@hollisandmiller.com]

Sent: Tuesday, November 29, 2011 1:25 PM

To: Stuart Olinger

Stuart,

Here is the original email and the material can be supplied by Metal by the foot. It is the same material, but they refer to it as "B7" rod. Please let me know if you need any additional information. Thanks!

1-1

For the x-brace locations (M-1, H-1, M-5, M-6 and J-5) the anchor must be a 1" diameter Hilti HAS Super (ASTM A 193 B7) Rod with HY150 max SD and embed 20". Unfortunately this is the only anchor that will work for our condition. All other locations can be per J1/S301. Please let me know if you have any questions or comments. Thanks!

John E. Funk, PE Senior Associate

hollis 1 architects Relationships + Results®

8205 W 108<sup>TH</sup> Terr. Ste 200 | Overland Park KS 66210.1661 T: 913.451.8886 x1011 | F: 913.451.0220 | C: 913.302.3858 ifunk@hollisandmiller.com | www.hollisandmiller.com

Hollis + Miller Architects encourages responsible environmental choices.

From: Stuart Olinger [mailto:solinger@alhuber.com]
Sent: Tuesday, November 29, 2011 12:13 PM

To: John Funk Subject: Bolt fix

John, again thanks for helping us out on the bolt situation. Per our conversation, could you put the material that you found at Metal by the Foot in that e-mail that you sent earlier. I want to be able to give it to Doherty and Kleinfelder. Thanks.

Stuart Olinger

A.L. HUBER GENERAL CONTRACTOR|POWERED BY Wind and Sun 10770 El Monte, Overland Park, KS 66211 office 913-341-4880 mobile 913-915-4236 ALHuber.com

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Phone: (913) 962-0909 Fax: (913) 962-0924

# CONCRETE CYLINDER COMPRESSIVE STRENGTH REPORT, ASTM C 39

Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064 Report Date:

12/28/2011

Project No.:

122792

Project:

Emergent Care - Primary Care

Task:

1 Task 1

#### MIX DESIGN DATA

Supplier:

Century

Mix No.:

3KFAMRWR

Cement Factor (sk/cy):

Max. Size Agg.(in.):

Cement Type:

Admixtures:

## SAMPLE DATA

Date Sampled: 11/4/2011

Date Received: 11/7/2011

Time Batched: 3:00 PM

Batch Size (cy):

Source of Sample: Footing

Date Necested. 11/1/2011

Time Sampled: 3:30 PM

Capping Method: Unbonded

Water Added (gal):

Line M-1 thru 6

Contractor:

A.L. Huber

Truck/Ticket:

221/220902/1

Sampled By:

EG EG

Submitted By: EG Curing Method: Cure Room

Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 72 hrs.

		Spec	cified
	Measured	Min	Max
Slump (in)	3.5	3	5
Slump w/plasticizer (in)			
Ambient Air Temperature (°F)	68		
Mix Temperature (°F)	75		
Air Content (%)	· ·		T
Unit Weight (pcf)			
Time in Truck (mins.)	30		

#### L/A(E(O)RVATIO)RY/ID/ATI/A

Set No.: LEN122792-1

Sample Date Age Dimensions (in) Area **Ultimate Load** Compressive Fracture Type Number Tested (days) (in<sup>2</sup>)(lbs) Strength (psi) Diam. Height LEN122792-1A 11/11/2011 7 4.00 8.00 12.57 Cone and Split 55,010 4,380 LEN122792-1B 12/2/2011 28 12.57 71,860 5,720 4.00 8.00 Cone and Split 28 Side Fracture 70,660 5,620 LEN122792-1C 12/2/2011 4.00 8.00 12.57 LEN122792-1D Hold

Average 28 Day Strength (psi): 5,670

Required Strength (psi) @ 28 days: 3,000

Remarks:

Reviewed on 12/2/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231

Unless prior arrangements have been made all HOLD specimens will be discarded if required strength is attained.

Limitations: Pursuant to applicable building codes, the results presented in this report are for the exclusive use of the client and the registered design professional in

Limitations: Pursuant to applicable building codes, the results presented in this report are for the exclusive use of the client and the registered design professional in responsible charge. The results apply only to the samples tested. If changes to the specifications were made and not communicated to Kleinfelder, Kleinfelder assumes no responsibility for pass/fall statements (meets/did not meet), if provided. This report may not be reproduced, except in full, without written approval of Kleinfelder.



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Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date:

12/28/2011

Project No.:

122792

Project:

Emergent Care - Primary Care

Task:

1 Task 1

## MIX DESIGN DATA

Supplier:

Century

Mix No.:

3KFAMRWR

Cement Factor (sk/cy): Max. Size Agg.(in.):

Admixtures:

Cement Type:

SAMPLE DATA

Date Sampled: 11/7/2011

Date Received: 11/8/2011

Time Batched: 1:07 PM

Batch Size (cy):

Source of Sample: Footing

Time Sampled: 1:30 PM

Water Added (gal):

Line 3-6

Contractor:

A.L. Huber

Truck/Ticket: Sampled By:

221/220981/1 EG

Submitted By: EG

Curing Method: Cure Room

Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 24 hrs.

		Spec	cified
	Measured	Min	Max
Slump (in)	3	3	5
Slump w/plasticizer (in)			
Ambient Air Temperature (°F)	65		
Mix Temperature (°F)	73		
Air Content (%)			
Unit Weight (pcf)			
Time in Truck (mins.)	23	·	

## [EVANERO] EVANTO JESY (EDVANDA

Set No.: LEN122792-2

Capping Method: Unbonded

Sample	Date	Age	Dimensi	ons (in)	Area	Fracture Type	Ultimate Load	Compressive
Number	Tested	(days)	Diam.	Height	(in²)		(ibs)	Strength (psi)
LEN122792-2A	11/14/2011	7	4.00	8.00	12.57	Side Fracture	52,770	4,200
LEN122792-2B	12/5/2011	28	4.00	8.00	12.57	Side Fracture	70,430	5,600
LEN122792-2C	12/5/2011	28	4.00	8.00	12.57	Side Fracture	70,020	5,570
LEN122792-2D		Hold						

Average 28 Day Strength (psi): 5,590 Required Strength (psi) @ 28 days: 3,000

Remarks:

Reviewed on 12/5/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231

Unless prior arrangements have been made all HOLD specimens will be discarded if required strength is attained.



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Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date:

12/28/2011

Project No.:

122792

Project:

Emergent Care - Primary Care

Task:

1 Task 1

#### MIX DESIGN DATA

Supplier:

Century

Mix No.:

Cement Type:

3KFAMRWR

Cement Factor (sk/cy): Max. Size Agg.(in.):

Admixtures:

SAMPLE DATA

Date Sampled: 11/10/2011

Date Received: 11/14/2011

Time Batched: 7:00 AM

Capping Method: Unbonded

Batch Size (cy):

Source of Sample: Footing

Time Sampled: 7:30 AM

Water Added (gal):

South footings

Contractor:

A.L. Huber

Truck/Ticket:

221/220981/1

Sampled By:

EG

Submitted By: EG

Curing Method: Cure Room Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 96 hrs.

		Spec	cified
	Measured	Min	Max
Slump (in)	3	3	5
Slump w/plasticizer (in)			
Ambient Air Temperature (°F)	40		
Mix Temperature (°F)	57		
Air Content (%)			
Unit Weight (pcf)			
Time in Truck (mins.)	30		

# LANGORVATION Y IDATVA

Set No.: LEN122792-3

Sample	Date	Age	Dimensi	ons (in)	Area	Fracture Type	Ultimate Load	Compressive
Number	Tested	(days)	Diam.	Height	(in²)		(lbs)	Strength (psi)
LEN122792-3A	11/17/2011	7	4.00	8.00	12.57	Side Fracture	48,340	3,850
LEN122792-3B	12/8/2011	28	4.00	8.00	12.57	Columnar	68,800	5,470
LEN122792-3C	12/8/2011	28	4.00	8.00	12.57	Cone and Split	70,370	5,600
LEN122792-3D		Hold						

Average 28 Day Strength (psi): 5,540 Required Strength (psi) @ 28 days: 3,000

Remarks:

Reviewed on 12/8/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231



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# CONCRETE CYLINDER COMPRESSIVE STRENGTH REPORT. ASTM C 39

Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date:

12/28/2011

Project No.:

122792

Project:

**Emergent Care - Primary Care** 

Task:

1 Task 1

#### MIXIDESIGNIDATA

Supplier: Mix No.:

Cement Type:

Century

3KFAMRWR

Cement Factor (sk/cy): Max. Size Agg.(in.):

Admixtures:

SAMPLE DATA

Date Sampled: 11/11/2011

Date Received: 11/14/2011

Time Batched: 10:25 AM

Batch Size (cy):

Source of Sample: Footing

Time Sampled: 11:00 AM

Water Added (gal):

SE footing pad

Contractor:

A.L. Huber

Truck/Ticket:

213/221071/1

Sampled By:

EG

Submitted By: EG Curing Method: Cure Room

Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 72 hrs.

		Spe	cified
	Measured	Min	Max
Slump (in)	3	3	5
Slump w/plasticizer (in)			
Ambient Air Temperature (°F)	50		
Mix Temperature (°F)	62		
Air Content (%)			
Unit Weight (pcf)			
Time in Truck (mins.)	35		<u> </u>

#### LABORATORY DATA

Sef	No .	1	EN	122	792-4
JUL	NO.	L	.⊏I¥	122	132-4

Capping Method: Unbonded

Sample Number	Date Tested	Age (days)	Dimensi Diam.	ons (in) Height	Area (in²)	Fracture Type	Ultimate Load (lbs)	Compressive Strength (psi)
LEN122792-4A	11/18/2011	7	4.00	8.00	12.57	Side Fracture	53,060	4,220
LEN122792-4B	12/9/2011	28	4.00	8.00	12.57	Cone and Split	70,180	5,580
LEN122792-4C	12/9/2011	28	4.00	8.00	12.57	Side Fracture	62,140	4,940
LEN122792-4D		Hold						· · · · · · · · · · · · · · · · · · ·
						A 20 D	Ctuan with tually	

Average 28 Day Strength (psi): 5,260 Required Strength (psi) @ 28 days: 3.000

Remarks:

Reviewed on 12/9/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231



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# CONCRETE CYLINDER COMPRESSIVE STRENGTH REPORT, ASTM C 39

Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date:

12/13/2011

Project No.:

122792

Project:

Emergent Care - Primary Care

Task:

1 Task 1

#### MIX DESIGN DATA

Supplier: Mix No.:

Century

N1C1554305

Cement Factor (sk/cy): Max. Size Agg.(in.):

Cement Type:

Admixtures:

#### SAMPLE DATA

Date Sampled: 11/15/2011

Date Received: 11/17/2011

Time Batched: 2:15 PM

Batch Size (cy):

Source of Sample: Footing

Time Sampled: 2:50 PM

Water Added (gal):

Elevator pit

Contractor:

A.L. Huber 210/221210

Truck/Ticket: Sampled By:

David Zentz

Submitted By: David Zentz Curing Method: Cure Room

Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 48 hrs.

		Spe	cified
	3.00 65	Min	Max
Slump (in)			
Slump w/plasticizer (in)	3.00	-	6
Ambient Air Temperature (°F)	65		
Mix Temperature (°F)	70		
Air Content (%)			
Unit Weight (pcf)			
Time in Truck (mins.)	35		

# LANSORVATION Y DIATIA

Set No.: LEN122792-5

Capping Method: Unbonded

Sample	Date	Age	Dimensi	ons (in)	Area	Fracture Type	Ultimate Load	Compressive
Number	Tested	(days)	Diam.	Height	(in²)		(lbs)	Strength (psi)
LEN122792-5A	11/22/2011	7	4.00	8.00	12.57	Cone and Split	46,480	3,700
LEN122792-5B	12/13/2011	28	4.00	8.00	12.57	Cone and Split	67,870	5,400
LEN122792-5C	12/13/2011	28	4.00	8.00	12.57	Columnar	66,700	5,310
LEN122792-5D		Hold						
					•	Average 28 D	ay Strength (psi):	5,360

Remarks:

Reviewed on 12/13/2011 by:

Stewart Legg

3,000

Project Manager

Required Strength (psi) @ 28 days:

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231



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# CONCRETE CYLINDER COMPRESSIVE STRENGTH REPORT, ASTM C 39

Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date:

12/28/2011

Project No.:

122792

Project:

Emergent Care - Primary Care

Task:

1 Task 1

MIX DESIGN DATA

Supplier:

Century

Mix No.: Cement Type:

NA

Cement Factor (sk/cy): Max. Size Agg.(in.):

Admixtures:

SAMPLE DATA

Date Sampled: 11/16/2011

Date Received: 11/17/2011

Time Batched: 2:00 PM

Batch Size (cy):

Source of Sample: Wall Panel

Time Sampled: 2:40 PM

Water Added (gal):

Elevator foundation walls at Grids A-C, 2.7-3.3

A.L. Huber Contractor: 212/221251 Truck/Ticket: John Wiss Sampled By: Submitted By: John Wiss Curing Method: Cure Room Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 24 hrs.

	Ţ	Spec	cified
	Measured	Min	Max
Slump (in)	4	3	5
Slump w/plasticizer (in)			
Ambient Air Temperature (°F)	42		
Mix Temperature (°F)	70		
Air Content (%)			
Unit Weight (pcf)		~~~	
Time in Truck (mins.)	40		

#### LANESO RVATIO RAY D'ATVA

Set No.: LEN122792-6

Capping Method: Unbonded

Sample	Date	Age	Dimensi	ions (in)	Area	Fracture Type	Ultimate Load	Compressive
Number	Tested	(days)	Diam.	Height	(in²)	Tractare Type	(lbs)	Strength (psi)
LEN122792-6A	11/21/2011	5	4.00	8.00	12.57	Side Fracture	46,100	3,670
LEN122792-6B	11/23/2011	7	4.00	8.00	12.57	Side Fracture	54,410	4,330
LEN122792-6C	12/14/2011	28	4.00	8.00	12.57	Cone and Split	74,210	5,910
LEN122792-6D	12/14/2011	28	4.00	8.00	12.57	Side Fracture	73,690	5,860
						A	06	

Average 28 Day Strength (psi): 5.890 Required Strength (psi) @ 28 days: 3,000

Remarks:

Reviewed on 12/14/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231



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# CONCRETE CYLINDER COMPRESSIVE STRENGTH REPORT. ASTM C 39

Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date:

12/21/2011

Project No.:

122792

Project:

Emergent Care - Primary Care

Task:

1 Task 1

#### MIX DESIGN DATA

Supplier: Mix No.:

Century

N1454G5

Max. Size Agg.(in.):

Cement Factor (sk/cy):

Admixtures:

Mid Range WR

Cement Type:

SAMPLE DATA

Time Batched: 7:20 AM

Batch Size (cy):

Source of Sample: Slab-on-Grade

Date Sampled: 11/23/2011

Date Received: 11/29/2011

Time Sampled: 8:00 AM

Water Added (gal):

Lines M-H, 5-6

Contractor:

Truck/Ticket: Sampled By:

247/221407 John Wiss Submitted By: John Wiss

Curing Method: Cure Room Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 144 hrs.

		Specified		
	Measured	Min	Max	
Slump (in)				
Slump w/plasticizer (in)	6.0	4	6	
Amblent Air Temperature (°F)	40			
Mix Temperature (°F)	68			
Air Content (%)				
Unit Weight (pcf)				
Time in Truck (mins.)	40			

# LABORATORY DATA

Set No.: LEN122792-7

Capping Method: Unbonded

		Age	Dimensions (in)		Area	Fracture Type	Ultimate Load	Compressive Strength (psi)
	(days)	Diam.	Height	(in²)	•	(lbs)		
LEN122792-7A	11/30/2011	7	4.00	8.00	12.57	Side Fracture	48,610	3,870
LEN122792-7B	12/21/2011	28	4.00	8.00	12.57	Cone and Split	66,900	5,320
LEN122792-7C	12/21/2011	28	4.00	8.00	12.57	Side Fracture	71,700	5,710
LEN122792-7D		Hold						
					•	A.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	au Chramath (naile	F 500

Average 28 Day Strength (psi): 5.520 Required Strength (psi) @ 28 days: 4,000

Remarks:

Reviewed on 12/21/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231



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Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date:

12/21/2011

Project No.:

122792

Project:

**Emergent Care - Primary Care** 

Task:

1 Task 1

#### MIX DESIGN DATA

Supplier:

Century

Mix No.:

N1454G5

Max. Size Agg.(in.):

Cement Factor (sk/cy):

Cement Type:

Admixtures:

Mid Range WR

## SAMPLE DATA

Date Sampled: 11/23/2011

Date Received: 11/29/2011

Time Batched: 8:09 AM

Batch Size (cv):

Source of Sample: Slab-on-Grade

Time Sampled: 8:50 AM

Water Added (gal):

Lines F.5-E.5, 1-3

Contractor:

Truck/Ticket: Sampled By:

221/221415 John Wiss

Submitted By: John Wiss Curing Method: Cure Room

Field Cure Temp (°F) Hi:

Lo:

Field Cure Time: 144 hrs.

		Specified		
	Measured	Min	Max	
Slump (in)	l			
Slump w/plasticizer (in)	6.0	4	6	
Ambient Air Temperature (°F)	42			
Mix Temperature (°F)	65		1	
Air Content (%)				
Unit Weight (pcf)				
Time in Truck (mins.)	41			

### LABORATORY DATA

Set No.: LEN122792-8

Capping Method: Unbonded

	Age	Dimensions (in)		Area	Fracture Type	Ultimate Load	Compressive	
	(days)	Diam.	Height	(in²)	(in²)	(lbs)	Strength (psi)	
LEN122792-8A	11/30/2011	7	4.00	8.00	12.57	Side Fracture	44,920	3,570
LEN122792-8B	12/21/2011	28	4.00	8.00	12.57	Side Fracture	66,740	5,310
LEN122792-8C	12/21/2011	28	4.00	8.00	12.57	Cone and Split	65,580	5,220
LEN122792-8D		Hold						
	·····			•		Average 28 D	ay Strongth (nei)	E 270

Average 28 Day Strength (psi): 5.270 Required Strength (psi) @ 28 days: 4,000

Remarks:

Reviewed on 12/21/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 31, C 138, C 143, C 172, C 173, C 231, C 617, C 1064, C 1231



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# GROUT COMPRESSIVE STRENGTH REPORT, ASTM C 1019

Report To:

**Emergent Care Plus** 

Rob Kutch

2741 Northeast McBaine Drive Lees Summit, MO 64064

Report Date: 12/28/2011

Project No.:

122792

Project:

Emergent Care - Primary Care

Task:

1 Task 1

MIX DESIGN DATA

Supplier:

Ash Grove

Cement Factor (sk/cy):

Mix No.:

NA

Max. Size Agg.(in):

Cement Type:

Admixtures:

SAMPLEDATA

Date Sampled: 11/30/2011

Date Received: 12/2/2011

Time Batched:

Batch Size (cy):

Source of Sample: Masonry

Time Sampled: 10:40 AM

10:30 AM

Capping Method: Sulfur Cement

Water Added (gal):

Elevator shaft at 20-24'

Contractor:

A.L. Huber

Truck/Ticket:

Sampled By:

EG

Submitted By: Curing Method: EG Cure Room

Field Cure Temp (°F) Hi:

Field Cure Time (days): 2

Lo:

	Measured	Specified		
	Weasured	Min	Max	
Slump (in)				
Ambient Air Temperature (°F)	40	-		
Mix Temperature (°F)	53			
Time in Truck (min)	10			

## LAISORATORY DATA

Set No.: LEN122792-9

Dimensions (in) Sample Date Age Area **Ultimate Load** Compressive Description of Failure Number Tested (days) Width (in²) (lbs) Strength (psi) Length Height LEN122792-9A 12/7/2011 7 3.10 3.10 6.00 9.61 Type 3-Columnar 55,750 5,800 LEN122792-9B 12/28/2011 28 3.10 3.20 9.92 5.90 Type 3-Columnar 67.380 6.790 LEN122792-9C 12/28/2011 28 3.10 3.10 6.00 9.61 Type 3-Columnar 62,030 6,450

> Average 28 Day Strength (psi): 6,620 Required Strength (psi) @ 28 days:

Remarks:

Reviewed on 12/28/2011 by:

Stewart Legg Project Manager

Associated Test Methods: ASTM C 39, C 143, C 617, C 1064