**Report Number:** 02191565.0022 **Service Date:** 04/21/20

**Report Date:** 04/22/20

09 - Portland Cement Concrete Testing - Building Elements Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 04/21/20 **Sample Time:** 1720

> Sampled By: Kevin L. McCurdy **Weather Conditions:** Clear, light wind

Geiger **Accumulative Yards: Batch Size (cy):** 

> **Placement Method:** Direct Discharge

Water Added Before (gal): Water Added After (gal):

**Sample Location:** Same as placement location

Pavement patch 50' north of Sterling **Placement Location:** 

Drive

Mix ID: KC4KDM40O

Supplier:

**Batch Time:** 1658 Plant: Lees Summit Truck No.: 377 **Ticket No.:** 803033

Field Test Data

Test **Specification** Result Slump (in): 1 1/2 3 - 5 Air Content (%): 5.2 5 - 8

Concrete Temp. (F): 72 72 Ambient Temp. (F):

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

### Laboratory Test Data

	idioly io	ot Duta				Age at	Maximum	Compressive		
Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
1	1	4.00	12.57		04/28/20	7				
1	2	4.00	12.57		05/19/20	28				
1	3	4.00	12.57		05/19/20	28				
1	4	4.00	12.57		05/19/20	28				
1	5					Hold				
Initial	Initial Cure: Outside			Final C	ure: Moist Ro	oom				

Comments: Not tested for plastic unit weight.

**KCMMB** 

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Kevin L. McCurdy Reported To: Norm with Axiom

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Ghassein Project Wanager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

<sup>\* =</sup> Field Test Results do not meet project specifications.

**Report Number:** 02191565.0022 **Service Date:** 04/21/20

**Report Date:** 

04/28/20 Revision 1 - 7-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 04/21/20 **Sample Time:** 1720

> Sampled By: Kevin L. McCurdy **Weather Conditions:** Clear, light wind

Supplier: Geiger **Accumulative Yards: Batch Size (cy):** 

> **Placement Method:** Direct Discharge

Water Added Before (gal): Water Added After (gal):

> **Sample Location:** Same as placement location

Pavement patch 50' north of Sterling **Placement Location:** 

Drive

Mix ID: KC4KDM40O

**Batch Time:** 1658 Plant: Lees Summit Truck No.: 377 **Ticket No.:** 803033

Field Test Data

Test **Specification** Result Slump (in): 1 1/2 3 - 5 Air Content (%): 5.2 5 - 8

Concrete Temp. (F): 72 72 Ambient Temp. (F):

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

# **Laboratory Test Data**

	iatory io	ot Data				Age at	Maximum	Compressive		
Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
1	1	4.01	12.63		04/28/20	7	58,970	4,670	3	RES
1	2	4.00	12.57		05/19/20	28				
1	3	4.00	12.57		05/19/20	28				
1	4	4.00	12.57		05/19/20	28				
1	5					Hold				
Initial	Cure: Outs	ide		Final C	ure: Moist Ro	oom				

Comments: Not tested for plastic unit weight.

**KCMMB** 

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Kevin L. McCurdy Reported To: Norm with Axiom

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Ghassein Project Wanager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

<sup>\* =</sup> Field Test Results do not meet project specifications.

**Report Number:** 02191565.0022 **Service Date:** 04/21/20

**Service Date:** 04/21/20 **Report Date:** 05/20/20

05/20/20 Revision 2 - 28-day results

 Task:
 09 - Portland Cement Concrete Testing - Building Elements

15620 W 113th St Lenexa, KS 66219-5102 913-492-7777

Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit. MO

Suite 101

Client

Everett, WA 98201 Project Number: 02191565

Material Information Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 04/21/20 Sample Time: 1720

Mix ID:Sampled By:Kevin L. McCurdyWeather Conditions:Clear, light wind

Supplier: Geiger Accumulative Yards: 6 Batch Size (cy):

Batch Time: 1658 Plant: Lees Summit Placement Method: Direct Discharge

Truck No.: 377 Ticket No.: 803033 Water Added Before (gal):
Water Added After (gal):
Samuel Leasting:

Sample Location: Same as placement location

Test Result Specification Placement Location: Pavement patch 50' north of Sterling

 Slump (in):
 1 1/2 \* 3 - 5

 Air Content (%):
 5.2 5 - 8

Concrete Temp. (F): 72

Ambient Temp. (F): 72 Plastic Unit Wt. (pcf):

Yield (Cu. Yds.):

### **Laboratory Test Data**

Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
1	1	4.01	12.63		04/28/20	7	58,970	4,670	3	RES
1	2	4.00	12.57		05/19/20	28	81,120	6,460	3	RES
1	3	4.00	12.57		05/19/20	28	76,390	6,080	3	RES
1	4	4.00	12.57		05/19/20	28	78,200	6,220	3	RES
						Aver	age (28 days)	6,250		
1	5					Hold				

Initial Cure: Outside Final Cure: Moist Room

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight. KCMMB

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

**Terracon Rep.:** Kevin L. McCurdy **Reported To:** Norm with Axiom

**Contractor:** Axiom Northwest Construction

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Marimum

Communaciona

Feras El-Ghusseir Project Vianager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

<sup>\* =</sup> Field Test Results do not meet project specifications.

**Report Number:** 02191565.0030 **Service Date:** 05/19/20

**Report Date:** 05/26/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102 913-492-7777

Client

Axiom Northwest Construction, Inc. Attn: Norm Hellings 2232 Broadway

Suite 101

Everett, WA 98201

**Material Information** 

Specified Strength: 3,000 psi @ 28 days

Mix ID: P6BD480V453

Supplier: Geiger

**Batch Time:** 1402 Plant: Lee's Summit, MO

Truck No.: 385 **Ticket No.:** 804986

Field Test Data

Test Result **Specification** 

Slump (in): 6 Air Content (%): 2.8 Concrete Temp. (F): 68 Ambient Temp. (F): 67 Plastic Unit Wt. (pcf): 147.0

Yield (Cu. Yds.):

**Project** 

DCI - Lee's Summit 2001 Shamrock Rd Lee's Summit, MO

Project Number: 02191565

Sample Information

Sample Date: 05/19/20 **Sample Time:** 1430

Sampled By: Caleb Brewer **Weather Conditions:** Partly Cloudy

**Accumulative Yards:** 10 Batch Size (cy): 10

**Placement Method:** Pump

Water Added Before (gal): Water Added After (gal):

**Sample Location:** Northeast corner of perimeter footing at

gridline B.5/1

Perimeter Footings and Interior Placement Location:

Spread Footings

**Laboratory Test Data** 

Labo	ratory les	st Data				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	<b>Tested</b>	(days)	(lbs)	(psi)	Type	By
1	1	4.00	12.57		05/26/20	7	41,440	3,300	2	RES
1	2	4.00	12.57		05/26/20	7	44,110	3,510	2	RES
						Ave	erage (7 days)	3,400		
1	3	4.00	12.57		06/16/20	28				
1	4	4.00	12.57		06/16/20	28				
1	5					Hold				

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

**Comments:** 

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer

Reported To:

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0030 **Service Date:** 05/19/20 **Report Date:** 05/26/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

10

Lenexa, KS 66219-5102 913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 3,000 psi @ 28 days Sample Date: 05/19/20 **Sample Time:** 1545

Sampled By: Caleb Brewer Mix ID: P6BD480V453 **Weather Conditions:** Partly Cloudy

Supplier: Geiger **Accumulative Yards:** 60 Batch Size (cy):

**Batch Time:** 1514 Plant: Lee's Summit, MO **Placement Method:** Pump

Truck No.: 454 **Ticket No.:** 805003 Water Added Before (gal): Water Added After (gal):

Field Test Data **Sample Location:** South Perimeter Footing at gridline B/2.

Perimeter Footings and Interior Test **Placement Location:** Result **Specification** 

**Spread Footings** Slump (in): 6

Air Content (%): 2.8 Concrete Temp. (F): 68 70 Ambient Temp. (F): Plastic Unit Wt. (pcf): 147.3

Yield (Cu. Yds.):

**Laboratory Test Data** 

	•					Age at	Maxillulli	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
2	1	4.00	12.57		05/26/20	7	44,340	3,530		RES
2	2	4.00	12.57		05/26/20	7	42,800	3,410	2	RES
						Ave	erage (7 days)	3,470		
2	3	4.00	12.57		06/16/20	28				
2	4	4.00	12.57		06/16/20	28				
2	5					Hold				
T T	a			E. 1.0	3.6					

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

**Comments:** 

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer

Reported To:

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Maximum

Compressive

Feras El-Ghassein Project Wanager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0030 **Service Date:** 

05/19/20 **Report Date:** 

06/16/20 Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

Lenexa, KS 66219-5102

10

913-492-7777

Client **Project** 

Result

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 3,000 psi @ 28 days Sample Date: 05/19/20 **Sample Time:** 1430

Sampled By: Caleb Brewer Mix ID: P6BD480V453 **Weather Conditions:** Partly Cloudy

Supplier: Geiger **Accumulative Yards:** 10 Batch Size (cy):

**Batch Time:** 1402 Plant: Lee's Summit, MO **Placement Method:** Pump

**Specification** 

Truck No.: 385 **Ticket No.:** 804986 Water Added Before (gal): Water Added After (gal):

Field Test Data **Sample Location:** Northeast corner of perimeter footing at

gridline B.5/1

Maximum

Compressive

Perimeter Footings and Interior Slump (in): 6 Placement Location:

Spread Footings Air Content (%): 2.8

Concrete Temp. (F): 68 Ambient Temp. (F): 67 Plastic Unit Wt. (pcf): 147.0

Yield (Cu. Yds.):

Test

**Laboratory Test Data** 

Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
1	1	4.00	12.57	06/03/20	05/26/20	7	41,440	3,300	2	RES
1	2	4.00	12.57	06/03/20	05/26/20	7	44,110	3,510	2	RES
						Ave	erage (7 days)	3,400		
1	3	4.00	12.57	06/03/20	06/16/20	28	64,770	5,150	3	RES
1	4	4.00	12.57	06/03/20	06/16/20	28	64,250	5,110	2	RES
						Aver	age (28 days)	5,130		
1	5			06/03/20		Hold				
Initial	Cure: Onsit	te Cooler		Final C	ure: Moist Ro	oom				

Comments: Average compressive strength of 28 day cylinders complies with the specified strength.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer

Reported To:

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0030 **Service Date:** 

05/19/20 **Report Date:** 

06/16/20 Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

10

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 3,000 psi @ 28 days Sample Date: 05/19/20 **Sample Time:** 1545

Sampled By: Caleb Brewer Mix ID: P6BD480V453 **Weather Conditions:** Partly Cloudy

Supplier: Geiger **Accumulative Yards:** 60 **Batch Size (cy):** 

**Batch Time:** 1514 Plant: Lee's Summit, MO **Placement Method:** Pump

Truck No.: 454 **Ticket No.:** 805003 Water Added Before (gal):

Water Added After (gal):

Field Test Data **Sample Location:** South Perimeter Footing at gridline B/2.

Perimeter Footings and Interior Test **Placement Location:** Result **Specification** 

**Spread Footings** Slump (in): 6

Air Content (%): 2.8 Concrete Temp. (F): 68 70 Ambient Temp. (F): Plastic Unit Wt. (pcf): 147.3

Yield (Cu. Yds.):

**Laboratory Test Data** 

	•					Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
2	1	4.00	12.57	06/03/20	05/26/20	7	44,340	3,530	2	RES
2	2	4.00	12.57	06/03/20	05/26/20	7	42,800	3,410	2	RES
						Ave	rage (7 days)	3,470		
2	3	4.00	12.57	06/03/20	06/16/20	28	63,600	5,060	3	RES
2	4	4.00	12.57	06/03/20	06/16/20	28	62,470	4,970	2	RES
						Aver	age (28 days)	5,020		
2	5			06/03/20		Hold				
Initial	Cure: Onsit	te Cooler		Final C	ure: Moist Ro	oom				

Comments: Average compressive strength of 28 day cylinders complies with the specified strength.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer

Reported To:

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Maximum

Compressive

Feras El-Glasseih Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0034 **Service Date:** 05/20/20

**Report Date:** 05/27/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

1400

6.5

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 3,000 psi @ 28 days

Mix ID: P6BD480V453

Supplier: Geiger

**Batch Time:** 1339 Plant: Lee's Summit, MO

Truck No.: 453 **Ticket No.:** 805115

Field Test Data

Test **Specification** Result Slump (in):

Air Content (%): 2.4 Concrete Temp. (F): 70 Ambient Temp. (F): 61 Plastic Unit Wt. (pcf): 147.2

Yield (Cu. Yds.):

Sample Information

Sample Date: 05/20/20 **Sample Time:** 

Sampled By: Caleb Brewer

**Weather Conditions:** Overcast

**Accumulative Yards:** 6.5 Batch Size (cy):

**Placement Method:** Direct Discharge

Water Added Before (gal): Water Added After (gal):

**Sample Location:** Same as Placement Location

**Placement Location:** Isolated Spread Footings at Gridlines

A/3 and A/5

**Laboratory Test Data** 

Labor	atory les	st Data				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	<b>Tested</b>	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63		05/27/20	7	41,190	3,260	2	RES
1	2	4.01	12.63		05/27/20	7	38,030	3,010	2	RES
						Ave	erage (7 days)	3,140		
1	3	4.00	12.57		06/17/20	28				
1	4	4.00	12.57		06/17/20	28				
1	5					Hold				

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

**Comments:** 

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer

Reported To: Norm with Axiom

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Ghassein Project Wanager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0034

**Service Date:** 05/20/20

**Report Date:** 06/24/20 Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

Lenexa, KS 66219-5102 913-492-7777

6.5

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 3,000 psi @ 28 days Sample Date: 05/20/20 **Sample Time:** 1400

Sampled By: Caleb Brewer Mix ID: P6BD480V453 **Weather Conditions:** Overcast

Supplier: Geiger **Accumulative Yards:** 6.5 Batch Size (cy):

**Batch Time:** 1339 Plant: Lee's Summit, MO **Placement Method:** Direct Discharge

Truck No.: 453 **Ticket No.:** 805115 Water Added Before (gal): Water Added After (gal):

Field Test Data **Sample Location:** Same as Placement Location

Test **Placement Location:** Isolated Spread Footings at Gridlines **Specification** Result

A/3 and A/5Slump (in): Air Content (%): 2.4

Concrete Temp. (F): 70 Ambient Temp. (F): 61 Plastic Unit Wt. (pcf): 147.2

Yield (Cu. Yds.):

**Laboratory Test Data** 

	•					Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	06/03/20	05/27/20	7	41,190	3,260	2	RES
1	2	4.01	12.63	06/03/20	05/27/20	7	38,030	3,010	2	RES
						Ave	rage (7 days)	3,140		
1	3	4.00	12.57	06/03/20	06/17/20	28	59,400	4,730	2	RES
1	4	4.00	12.57	06/03/20	06/17/20	28	55,880	4,450	2	RES
						Aver	age (28 days)	4,590		
1	5			06/03/20		Hold				
Initial	Cure: Onsit	te Cooler		Final C	ure: Moist Ro	oom				

Comments: Average compressive strength of 28 day cylinders complies with the specified strength.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer Reported To: Norm with Axiom

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Maximum

Compressive

Feras El-Glassein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0038 **Service Date:** 05/27/20 **Report Date:** 06/03/20

09 - Portland Cement Concrete Testing - Building Elements Task:

0945

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit Attn: Norm Hellings 2001 Shamrock Rd 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 4,000 psi @ 28 days Sample Date: 05/27/20 **Sample Time:** 

Sample Information

Sampled By: Carl W. Creamer Mix ID: P8BC480W453 **Weather Conditions:** Mostly Cloudy

Supplier: Geiger Ready Mix **Accumulative Yards:** Batch Size (cy):

**Batch Time:** 0915 Plant: Lee's Summit, MO **Placement Method:** Direct Discharge

Truck No.: 452 **Ticket No.:** 805388 Water Added Before (gal): Water Added After (gal): **Field Test Data** 

**Sample Location:** At B/1.8

Test **Placement Location:** Foundation Stem Walls, Line B/1 to Result **Specification** 

1.8 and Line 1/B to B.5 Slump (in): 51/2Max 8

Air Content (%): 3.0 Concrete Temp. (F): 71 Ambient Temp. (F): 65

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Laboratory Test Data

	iatory io	ot Dutu				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	06/03/20	06/03/20	7	43,290	3,430	2	RES
1	2	4.00	12.57	06/03/20	06/24/20	28				
1	3	4.00	12.57	06/03/20	06/24/20	28				
1	4	4.00	12.57	06/03/20	06/24/20	28				
1	5			06/03/20		Hold				
Initial	Cura Outo	ida		Final C	uma. Majet De	om				

**Initial Cure:** Outside Comments: Not tested for plastic unit weight.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Carl W. Creamer Reported To: Norm with Axiom

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Ghassein Project Wanager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0038 **Service Date:** 05/27/20

**Report Date:** 06/24/20

Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

**Sample Time:** 

0945

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit Attn: Norm Hellings 2001 Shamrock Rd 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 4,000 psi @ 28 days Sample Date: 05/27/20

Sampled By: Carl W. Creamer Mix ID: P8BC480W453 **Weather Conditions:** Mostly Cloudy

Supplier: Geiger Ready Mix **Accumulative Yards:** Batch Size (cy):

**Batch Time:** 0915 Plant: Lee's Summit, MO **Placement Method:** Direct Discharge

Truck No.: 452 **Ticket No.:** 805388 Water Added Before (gal): Water Added After (gal):

Field Test Data **Sample Location:** At B/1.8

Test **Placement Location:** Foundation Stem Walls, Line B/1 to Result **Specification** 

Sample Information

1.8 and Line 1/B to B.5 Slump (in): 5 1/2 Max 8

Air Content (%): 3.0 Concrete Temp. (F): 71 Ambient Temp. (F): 65

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

**Laboratory Test Data** 

						Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	06/03/20	06/03/20	7	43,290	3,430	2	RES
1	2	4.00	12.57	06/03/20	06/24/20	28	62,150	4,950	3	RES
1	3	4.00	12.57	06/03/20	06/24/20	28	61,610	4,900	2	RES
1	4	4.00	12.57	06/03/20	06/24/20	28	61,870	4,920	2	RES
						Aver	age (28 days)	4,920		
1	5			06/03/20		Hold				

Initial Cure: Outside Final Cure: Moist Room

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Carl W. Creamer Reported To: Norm with Axiom

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Marimum

Communaciona

Feras El-Glasseih Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0042 **Service Date:** 06/02/20 **Report Date:** 06/09/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

77

88

Specified Strength: 4,000 psi @ 28 days Sample Date: 06/02/20 **Sample Time:** 1500

Sampled By: Damien McKnight

Mix ID: P8BC480W453 **Weather Conditions:** Clear

Supplier: 7.25 Batch Size (cy): 7.25 Geiger **Accumulative Yards:** 

Direct Discharge **Batch Time:** 1424 Plant: Lee's Summit, MO **Placement Method:** 

Truck No.: 466 **Ticket No.:** 805786 Water Added Before (gal): 2 Water Added After (gal): 0 Field Test Data **Sample Location:** B/3

Perimeter stem wall, along gridlines Test **Placement Location:** Result **Specification** B/1.8-9 and B to 11' east of D/9

Slump (in): 6 Max 8 Air Content (%): 4.0

Concrete Temp. (F):

Ambient Temp. (F):

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

**Laboratory Test Data** 

	•					Age at	Maxilliulli	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	06/03/20	06/09/20	7	43,810	3,470		RES
1	2	4.00	12.57	06/03/20	06/30/20	28				
1	3	4.00	12.57	06/03/20	06/30/20	28				
1	4	4.00	12.57	06/03/20	06/30/20	28				
1	5			06/03/20		Hold				
Initial	Cure: Onsit	te Cooler		Final C	ure: Moist Ro	oom				

**Initial Cure:** Onsite Cooler Comments: Not tested for plastic unit weight.

No Specs On Site.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Damien McKnight Reported To: Norm with Axiom

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Maximum

Compressive

Feras El-Glasseih Project Manager

Ja & Shirin

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0042 **Service Date:** 06/02/20

**Report Date:** 07/01/20 Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements

Task:

1500

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit Attn: Norm Hellings 2001 Shamrock Rd 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 4,000 psi @ 28 days Sample Date: 06/02/20 **Sample Time:** 

Sampled By: Damien McKnight Mix ID: P8BC480W453 **Weather Conditions:** Clear

Supplier: 7.25 Batch Size (cy): 7.25 Geiger **Accumulative Yards:** 

Sample Information

Direct Discharge **Batch Time:** 1424 Plant: Lee's Summit, MO **Placement Method:** 

Truck No.: 466 **Ticket No.: 805786** Water Added Before (gal): 2 Water Added After (gal): 0 Field Test Data **Sample Location:** B/3

Perimeter stem wall, along gridlines Test **Placement Location:** Result **Specification** B/1.8-9 and B to 11' east of D/9

Slump (in): 6 Max 8

Air Content (%): 4.0 Concrete Temp. (F): 77 Ambient Temp. (F): 88

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

**Laboratory Test Data** 

						Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	06/03/20	06/09/20	7	43,810	3,470	2	RES
1	2	4.00	12.57	06/03/20	06/30/20	28	61,820	4,920	3	RES
1	3	4.00	12.57	06/03/20	06/30/20	28	61,610	4,900	2	RES
1	4	4.00	12.57	06/03/20	06/30/20	28	60,330	4,800	3	RES
						Aver	age (28 days)	4,870		
1	5			06/03/20		Hold				

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight.

No Specs On Site.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Damien McKnight Reported To: Norm with Axiom

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Marimum

Communaciona

Feras El-Glasseih Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0045 **Service Date:** 06/05/20 **Report Date:** 06/14/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 06/05/20 **Sample Time:** 0830

Sampled By: Caleb Brewer Mix ID: P8BC480W453 **Weather Conditions:** Overcast

Supplier: Geiger **Accumulative Yards:** 8.75 Batch Size (cy): 8.75

**Batch Time:** 0813 Plant: Lee's Summit, MO **Placement Method:** Direct Discharge

Truck No.: 452 Ticket No.: 806016 Water Added Before (gal): Water Added After (gal):

Field Test Data **Sample Location:** Stem Wall 30' North of SW building

Result **Specification** Perimeter stem wall at gridlines B/9 to Slump (in): 61/2Max 8 Placement Location:

SW corner of building to 40' north of

SW corner.

Yield (Cu. Yds.):

Air Content (%):

Concrete Temp. (F):

Ambient Temp. (F):

Plastic Unit Wt. (pcf):

Test

**Laboratory Test Data** 

		u.u.				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	06/09/20	06/12/20	7	42,740	3,380	2	ALP
1	2	4.00	12.57	06/09/20	07/03/20	28				
1	3	4.00	12.57	06/09/20	07/03/20	28				
1	4	4.00	12.57	06/09/20	07/03/20	28				
1	5			06/09/20		Hold				

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

2.8

75

76

147.0

**Comments:** 

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer

Reported To: Norm Hellings (Axiom Northwest Construction)

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Glasseih Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0045 **Service Date:** 06/05/20

**Report Date:** 07/08/20 Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

Lenexa, KS 66219-5102 913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 06/05/20 **Sample Time:** 0830

Sampled By: Caleb Brewer Mix ID: P8BC480W453 **Weather Conditions:** Overcast

Supplier: Geiger **Accumulative Yards:** 8.75 Batch Size (cy): 8.75

**Batch Time:** 0813 Plant: Lee's Summit, MO **Placement Method:** Direct Discharge

Truck No.: 452 Ticket No.: 806016 Water Added Before (gal): Water Added After (gal):

Field Test Data **Sample Location:** Stem Wall 30' North of SW building

Maximum

Test Result **Specification** Perimeter stem wall at gridlines B/9 to Slump (in): 61/2Max 8 Placement Location:

SW corner of building to 40' north of

SW corner.

Compressive

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Air Content (%):

Concrete Temp. (F):

Ambient Temp. (F):

**Laboratory Test Data** 

	_					Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	06/09/20	06/12/20	7	42,740	3,380	2	ALP
1	2	4.01	12.63	06/09/20	07/03/20	28	60,320	4,780	2	ALP
1	3	4.01	12.63	06/09/20	07/03/20	28	61,420	4,860	2	ALP
1	4	4.01	12.63	06/09/20	07/03/20	28	61,780	4,890	3	ALP
						Aver	age (28 days)	4,840		
1	5			06/09/20		Hold				
T	a	G 1		E 1.0	3.6 1 . 3					

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

2.8

75

76

147.0

Comments: Average compressive strength of 28 day cylinders complies with the specified strength.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Caleb Brewer

Reported To: Norm Hellings (Axiom Northwest Construction)

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Glasseih Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0048 **Service Date:** 06/11/20

**Report Date:** 06/29/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 4,000 psi @ 28 days

Mix ID: KC4KDM60Q

Supplier: Geiger

**Batch Time:** 0917 Plant: Lee's Summit

Truck No.: 453 **Ticket No.:** 806504

Field Test Data

Slump (in):

Test Result **Specification** 

41/2

Air Content (%): 5.9 Concrete Temp. (F): 81 78

Ambient Temp. (F): Plastic Unit Wt. (pcf): 143.6

Yield (Cu. Yds.):

Sample Information

Sample Date: 06/11/20 **Sample Time:** 0952

Sampled By: Damien McKnight

**Weather Conditions:** Clear

**Accumulative Yards:** Batch Size (cy): 6

**Placement Method:** Direct Discharge

Maximum

Water Added Before (gal): 0 Water Added After (gal):

**Sample Location:** Approximately 50 feet N. of 1st St on

Pryor Rd, NE corner of slab

Sidewalk slab on grade located Placement Location:

approximately 50 feet N. of 1st St on

Pryor Rd,

Compressive

**Laboratory Test Data** 

Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
110.									<u> 1ypc</u>	
1	1	4.00	12.57	06/15/20	06/18/20	7	54,380	4,330	2	RES
1	2	4.00	12.57	06/15/20	07/09/20	28				
1	3	4.00	12.57	06/15/20	07/09/20	28				
1	4	4.00	12.57	06/15/20	07/09/20	28				
1	5			06/15/20		Hold				
Initial	Cure: Onsi	te Cooler		Final C	ure: Moist Ro	oom				

Comments: No Specs On Site.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Damien McKnight

Reported To:

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Jeonard Dey Kewertz Feras El-Ghussein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0048

**Service Date:** 06/11/20

**Report Date:** 07/15/20 Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 4,000 psi @ 28 days Sample Date: 06/11/20 **Sample Time:** 0952

Sample Information

Sampled By: Damien McKnight

Mix ID: KC4KDM60O **Weather Conditions:** Clear

Supplier: **Accumulative Yards:** Geiger Batch Size (cy): 6

**Batch Time:** 0917 Plant: Lee's Summit **Placement Method:** Direct Discharge

Truck No.: 453 **Ticket No.:** 806504 Water Added Before (gal): 0 Water Added After (gal):

Field Test Data **Sample Location:** Approximately 50 feet N. of 1st St on

Pryor Rd, NE corner of slab

Test Result **Specification** Sidewalk slab on grade located **Placement Location:** Slump (in): 41/2

approximately 50 feet N. of 1st St on

Pryor Rd,

Compressive

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Air Content (%):

Concrete Temp. (F):

Ambient Temp. (F):

**Laboratory Test Data** 

	•					Age at	Maxillulli	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.00	12.57	06/15/20	06/18/20	7	54,380	4,330	2	RES
1	2	4.00	12.57	06/15/20	07/09/20	28	70,270	5,590	2	RES
1	3	4.00	12.57	06/15/20	07/09/20	28	71,960	5,730	3	RES
1	4	4.00	12.57	06/15/20	07/09/20	28	67,550	5,380	3	RES
						Aver	age (28 days)	5,560		
1	5			06/15/20		Hold				
T *4* 1	<b>a</b> • • •	1		E' 1.0	3.6 ° . D					

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

5.9

81

78

143.6

Comments: Average compressive strength of 28 day cylinders complies with the specified strength.

No Specs On Site.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Damien McKnight

Reported To:

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Maximum

Feras El-Glasseih Project Manager

/ Sm & Shirin

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0051 **Service Date:** 07/07/20 **Report Date:** 07/17/20

09 - Portland Cement Concrete Testing - Building Elements Task:

**Sample Time:** 

Lenexa, KS 66219-5102 913-492-7777

07/07/20

Ron Scott

Partly cloudy

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 4,000 psi @ 28 days Sample Date:

Sampled By: Mix ID: **Weather Conditions:** 

Supplier: **Accumulative Yards:** 10 Batch Size (cy): 10

Sample Information

**Batch Time:** 0530 Plant: **Placement Method:** Pump Truck No.: 467 **Ticket No.:** 808400 Water Added Before (gal): 5 Water Added After (gal):

Field Test Data **Sample Location:** SW corner of slab. 5 yds east of west

Test Result **Specification Placement Location:** Slab on grade; interior floor

Slump (in): 53/45 - 7Air Content (%): 2.5 0 - 3Concrete Temp. (F): 84 72 Ambient Temp. (F):

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Laboratory Test Data

	iatory io	ot Duta				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.00	12.57	07/09/20	07/14/20	7	57,600	4,580	2	RES
1	2	4.00	12.57	07/09/20	08/04/20	28				
1	3	4.00	12.57	07/09/20	08/04/20	28				
1	4	4.00	12.57	07/09/20	08/04/20	28				
1	5			07/09/20		Hold				
Initial	Cura Onci	to Cooler		Final C	una. Maist De	0.000				

**Initial Cure:** Onsite Cooler

Comments: Not tested for plastic unit weight.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Ron Scott

Reported To:

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0051 **Service Date:** 07/07/20 **Report Date:** 07/17/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102 913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit Attn: Norm Hellings 2001 Shamrock Rd 2232 Broadway Lee's Summit, MO Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** 

Specified Strength: 4,000 psi @ 28 days Sample Date: 07/07/20 **Sample Time:** 

Sampled By: Ron Scott Mix ID: **Weather Conditions:** Partly cloudy

Supplier: **Accumulative Yards:** 60 Batch Size (cy): 10

**Batch Time:** 0645 Plant: **Placement Method:** Pump Truck No.: 377 **Ticket No.:** 808415 Water Added Before (gal): 5 Water Added After (gal): Field Test Data

**Sample Location:** Center of slab. About 12 yds from east

Marimum

Communaciona

Sample Information

Test **Specification** Result **Placement Location:** Slab on grade; interior floor

5 - 7 Slump (in): 61/21.9 Air Content (%): 0 - 3Concrete Temp. (F): 83 77

Ambient Temp. (F): Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

**Laboratory Test Data** 

						Age at	Maximum	Compressive		
Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
2	1	4.00	12.57	07/09/20	07/14/20	7	60,220	4,790	2	RES
2	2	4.00	12.57	07/09/20	08/04/20	28				
2	3	4.00	12.57	07/09/20	08/04/20	28				
2	4	4.00	12.57	07/09/20	08/04/20	28				
2	5			07/09/20		Hold				

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

Comments: Not tested for plastic unit weight.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Ron Scott

Reported To:

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0051 **Service Date:** 07/07/20 **Report Date:** 07/17/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Result

85

81

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 07/07/20 **Sample Time:** 

Sampled By: Ron Scott Mix ID: **Weather Conditions:** Clear

Supplier: 120 **Accumulative Yards:** Batch Size (cy): 10

**Batch Time:** 0745 Plant: **Placement Method:** Pump Truck No.: 468 **Ticket No.:** 808433 Water Added Before (gal): 5 Water Added After (gal):

**Specification** 

Field Test Data **Sample Location:** Towards NW corner of slab. 5 yds from

north wall, 8 yds from east wall.

Compressive

Maximum

Slab on grade: interior floor Slump (in): 5 - 7Placement Location: Air Content (%): 1.4 0 - 3

Ambient Temp. (F): Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Test

Concrete Temp. (F):

**Laboratory Test Data** 

Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test	Load (lbs)	Strength	Fracture	Tested
110.	- <del></del>		<u> </u>			(days)		(psi)	Туре	<u>By</u>
3	1	4.00	12.57	07/09/20	07/14/20	7	55,190	4,390	3	RES
3	2	4.00	12.57	07/09/20	08/04/20	28				
3	3	4.00	12.57	07/09/20	08/04/20	28				
3	4	4.00	12.57	07/09/20	08/04/20	28				
3	5			07/09/20		Hold				
Initial	Cure: Onsit	te Cooler		Final C	ure: Moist Ro	oom				

Comments: Not tested for plastic unit weight.

Total: 140 yds.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Ron Scott

Reported To:

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Jeonard Dey Kewertz Feras El-Ghussein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0051 **Service Date:** 07/07/20

Suite 101

**Report Date:** 08/04/20 Revision 1 - 28-day results

09 - Portland Cement Concrete Testing - Building Elements Task:

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Everett, WA 98201 Project Number: 02191565

**Material Information** 

**Specified Strength:** 4,000 psi @ 28 days Sample Date: 07/07/20 **Sample Time:** 

Sampled By: Ron Scott Mix ID: **Weather Conditions:** Partly cloudy

Supplier: **Accumulative Yards:** 10 Batch Size (cy): 10

**Batch Time:** 0530 Plant: **Placement Method:** Pump Truck No.: 467 **Ticket No.:** 808400 Water Added Before (gal): 5 Water Added After (gal): 0 Field Test Data

**Sample Location:** SW corner of slab. 5 yds east of west

Sample Information

Placement Location: Slab on grade; interior floor

Test Result **Specification** Slump (in):  $5 \, 3/4$ 5 - 7Air Content (%): 2.5 0 - 3Concrete Temp. (F): 84 72 Ambient Temp. (F):

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

**Laboratory Test Data** 

Labo	ratory les	st Data				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.00	12.57	07/09/20	07/14/20	7	57,600	4,580	2	RES
1	2	4.00	12.57	07/09/20	08/04/20	28	74,250	5,910	3	RES
1	3	4.00	12.57	07/09/20	08/04/20	28	76,730	6,110	3	RES
1	4	4.00	12.57	07/09/20	08/04/20	28	75,250	5,990	3	RES
						Aver	age (28 days)	6,000		
1	5			07/09/20		Hold				

**Initial Cure:** Onsite Cooler Final Cure: Moist Room

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight.

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Ron Scott

Reported To:

**Contractor: Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0051 **Service Date:** 07/07/20

**Report Date:** 08/04/20 Revision 1 - 28-day results

 Task:
 09 - Portland Cement Concrete Testing - Building Elements

15620 W 113th St Lenexa, KS 66219-5102 913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101
Everett, WA 98201 Project Number: 02191565

Result

1.9

83 77

Material Information Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 07/07/20 Sample Time:

Sampled By: Ron Scott

Mix ID: Weather Conditions: Partly cloudy

Supplier: Accumulative Yards: 60 Batch Size (cy): 10

Batch Time: 0645
Truck No.: 377
Ticket No.: 808415
Placement Method: Pump
Water Added Before (gal): 5
Water Added After (gal): 0
Samuel Location: Contact

**Specification** 

0 - 3

Sample Location: Center of slab. About 12 yds from east

Wa

Maximum

Compressive

Slump (in): 5 - 7 Placement Location: Slab on grade; interior floor

Yield (Cu. Yds.):

**Laboratory Test Data** 

Test

Air Content (%):

Concrete Temp. (F):

Ambient Temp. (F): Plastic Unit Wt. (pcf):

	•					Age at	Maxilliulli	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
2	1	4.00	12.57	07/09/20	07/14/20	7	60,220	4,790	2	RES
2	2	4.00	12.57	07/09/20	08/04/20	28	76,570	6,090	2	RES
2	3	4.00	12.57	07/09/20	08/04/20	28	72,990	5,810	2	RES
2	4	4.00	12.57	07/09/20	08/04/20	28	73,540	5,850	3	RES
						Aver	age (28 days)	5,920		
2	5			07/09/20		Hold				
	a	~ 1								

Initial Cure: Onsite Cooler Final Cure: Moist Room

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Ron Scott

**Reported To:** 

**Contractor:** Axiom Northwest Construction

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0051 **Service Date:** 07/07/20

**Report Date:** 08/04/20 Revision 1 - 28-day results

**Task:** 09 - Portland Cement Concrete Testing - Building Elements

15620 W 113th St Lenexa, KS 66219-5102 913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Material Information Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 07/07/20 Sample Time:

Sampled By: Ron Scott

Mix ID: Weather Conditions: Clear

Supplier: Accumulative Yards: 120 Batch Size (cy): 10

Batch Time: 0745 Plant: Placement Method: Pump
Truck No.: 468 Ticket No.: 808433 Water Added Before (gal): 5
Water Added After (gal): 0

**Specification** 

Field Test Data

Sample Location: Towards NW corner of slab. 5 yds from

north wall, 8 yds from east wall.

Compressive

Maximum

Slump (in): 7 5 - 7 Placement Location: Slab on grade: interior floor Air Content (%): 1.4 0 - 3

Ambient Temp. (F): Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Test

Concrete Temp. (F):

**Laboratory Test Data** 

	•					Age at	Maxillulli	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
3	1	4.00	12.57	07/09/20	07/14/20	7	55,190	4,390	3	RES
3	2	4.00	12.57	07/09/20	08/04/20	28	74,530	5,930	2	RES
3	3	4.00	12.57	07/09/20	08/04/20	28	72,860	5,800	2	RES
3	4	4.00	12.57	07/09/20	08/04/20	28	73,990	5,890	2	RES
						Aver	age (28 days)	5,870		
3	5			07/09/20		Hold				

Initial Cure: Onsite Cooler Final Cure: Moist Room

Result

85

81

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight.
Total: 140 yds.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Ron Scott

Reported To:

**Contractor:** Axiom Northwest Construction

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Glasseih Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0059 **Service Date:** 08/27/20 **Report Date:** 09/29/20

Task: 09/29/20

Once the desired of the desired of

09 - Portland Cement Concrete Testing - Building Elements

Terracon 5620 W 113th St

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Material Information Sample Information

Specified Strength: Sample Date: 08/27/20 Sample Time:

Sampled By: Contractor

Mix ID: Weather Conditions:

Supplier: Accumulative Yards: Batch Size (cy):

Batch Time: Plant: Placement Method:
Truck No.: Ticket No.: Water Added Before (gal):
Water Added After (gal):

Field Test Data

Sample Location:

Test

Result

Specification

Placement Location:

Air Content (%): Concrete Temp. (F): Ambient Temp. (F): Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

**Laboratory Test Data** 

	iatory io	ot Bata				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	3.01	7.12	08/28/20	09/24/20	28	41,450	5,830	3	RES
1	2	3.02	7.16	08/28/20	09/24/20	28	36,040	5,030	3	RES
1	3	3.01	7.12	08/28/20	09/24/20	28	36,950	5,190	2	RES
						Aver	age (28 days)	5,350		

Initial Cure: Outside Final Cure: Moist Room

Comments: Not tested for plastic unit weight.

Information not provided along with cylinders. Cylinders were cast with an I.D. of ~3 inches, in PVC pipes of varying lengths. The cylinders were trimmed to meet ASTM requirements.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Contractor

Reported To:

**Contractor:** Axiom Northwest Construction

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Feras El-Glassein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0063 **Service Date:** 08/31/20 **Report Date:** 09/10/20

**Task:** 09 - Portland Cement Concrete Testing - Building Elements

Terracon

5620 W 113th St

1210

15620 W 113th St Lenexa, KS 66219-5102 913-492-7777

Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit, MO

Everett, WA 98201 Project Number: 02191565

Material Information

Client

Suite 101

Specified Strength: 4,000 psi @ 28 days Sample Date: 08/31/20 Sample Time:

Mix ID: P8BC600W444 Sampled By: Blake Berg
Weather Conditions: Clear

Mix ID:P8BC600W444Weather Conditions:ClearSupplier:Geiger Ready MixAccumulative Yards:7.5Batch Size (cy):7.5

Sample Information

Batch Time: 1133 Plant: Placement Method: Buggy
Truck No.: 356 Ticket No.: 813135 Water Added Before (gal): 10
Water Added After (gal): 0

Field Test Data

Sample Location:

Same as placement location

Placement Location:

Pourbacks for column blockouts

 Test
 Result
 Specification

 Slump (in):
 7 1/2
 Max 8

 Air Content (%):
 1.4
 1 - 3

 Concrete Temp. (F):
 83

 Ambient Temp. (F):
 85

Plastic Unit Wt. (pcf): Yield (Cu. Yds.): 7.5

**Laboratory Test Data** 

						Age at	Maximum	Compressive		
Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
1	1	4.01	12.63		09/08/20	8	67,920	5,380	2	ALP
1	2	4.00	12.57		09/28/20	28				
1	3	4.00	12.57		09/28/20	28				
1	4	4.00	12.57		09/28/20	28				
1	5					Hold				

Initial Cure: See Comments Final Cure: Moist Room

Comments: Not tested for plastic unit weight.

On site buckets filled with water

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Blake Berg

**Reported To:** JJ with Bottorff Construction **Contractor:** Axiom Northwest Construction

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

**Reviewed By:** 

Marimum

Communaciona

Feras El-Ghassein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0063 **Service Date:** 08/31/20

Description 00/31/20

**Report Date:** 09/29/20 Revision 1 - 28-day results

**Task:** 09 - Portland Cement Concrete Testing - Building Elements

15620 W 113th St Lenexa, KS 66219-5102

913-492-7777

Client Project

Axiom Northwest Construction, Inc.

Attn: Norm Hellings

2001 Shamrock Rd

2232 Broadway

Lee's Summit. MO

Suite 101

Everett, WA 98201 Project Number: 02191565

Material Information Sample Information

Specified Strength: 4,000 psi @ 28 days Sample Date: 08/31/20 Sample Time: 1210

Sampled By: Blake Berg

Mix ID: P8BC600W444 Weather Conditions: Clear

Supplier: Geiger Ready Mix Accumulative Yards: 7.5 Batch Size (cy): 7.5

Batch Time: 1133 Plant: Placement Method: Buggy
Truck No.: 356 Ticket No.: 813135 Water Added Before (gal): 10
Water Added After (gal): 0

Field Test Data

Sample Location:

Same as placement location

Test Result Specification Placement Location: Pourbacks for column blockouts Slump (in): 7 1/2 Max 8

Air Content (%): 1.4 1 - 3

Concrete Temp. (F): 83 Ambient Temp. (F): 85 Plastic Unit Wt. (pcf):

Yield (Cu. Yds.): 7.5

**Laboratory Test Data** 

Laboratory lest Data						Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63	09/01/20	09/08/20	8	67,920	5,380	2	ALP
1	2	4.01	12.63	09/01/20	09/28/20	28	80,820	6,400	3	RES
1	3	4.01	12.63	09/01/20	09/28/20	28	81,830	6,480	3	RES
1	4	4.01	12.63	09/01/20	09/28/20	28	77,480	6,130	2	RES
						Aver	age (28 days)	6,340		
1	5			09/01/20		Hold				

Initial Cure: See Comments Final Cure: Moist Room

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight.

On site buckets filled with water

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Blake Berg

**Reported To:** JJ with Bottorff Construction **Contractor:** Axiom Northwest Construction

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

Reviewed By:

Feras El-Glassein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0067 **Service Date:** 09/21/20 **Report Date:** 10/31/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Everett, WA 98201

**Material Information** 

Suite 101

Specified Strength: 3,500 psi @ 28 days

Mix ID: A6BC517V445

Supplier: Geiger

Field Test Data

**Batch Time:** 1015 Plant: Lee's Summit, MO

Truck No.: 343 **Ticket No.:** 814640

Test **Specification** Result Slump (in): 63/45 - 7 Air Content (%): 5.5 5 - 8

Concrete Temp. (F): 72 70 Ambient Temp. (F):

Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Project Number: 02191565

Sample Information

Sample Date: 09/21/20 **Sample Time:** 1045

Sampled By: Rigo Rodriguez **Weather Conditions:** Sunny/Clear

16/30 **Accumulative Yards:** Batch Size (cy):

**Placement Method:** Chute Water Added Before (gal): 0 Water Added After (gal):

**Sample Location:** Westside sidewalk (sw corner)

Compressive

**Placement Location:** Sidewalk

Maximum

**Laboratory Test Data** 

Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Test (days)	Load (lbs)	Strength (psi)	Fracture Type	Tested By
1	1	4.01	12.63		09/28/20	7	42,410	3,360	2	RES
1	2	4.01	12.63		09/28/20	7	42,220	3,340	2	RES
						Ave	erage (7 days)	3,350		
1	3	4.00	12.57		10/19/20	28	59,340	4,720	2	RES
1	4	4.00	12.57		10/19/20	28	59,440	4,730	2	RES
						Aver	age (28 days)	4,730		
1	5					Hold				

Age at

Initial Cure: Outside Final Cure: Moist Room

Comments: Average compressive strength of 28 day cylinders complies with the specified strength. Not tested for plastic unit

weight.

On top of man hole

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Rigo Rodriguez

Reported To: JJ with Bottorff Construction Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc.,

norm@axiomnw.com

(1) Axiom Northwest Construction, Inc.,

tiffani@axiomnw.com

**Reviewed By:** 

Feras El-Glassein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0077 **Service Date:** 09/23/20 **Report Date:** 11/08/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

**Specified Strength:** Sample Date: 09/23/20 **Sample Time:** 

> Sampled By: Contractor

Mix ID: **Weather Conditions:** 

Supplier: **Accumulative Yards: Batch Size (cy):** 

**Batch Time:** Plant: **Placement Method:** Truck No.: Ticket No.: Water Added Before (gal): Water Added After (gal):

> **Sample Location: Placement Location:** Result **Specification**

Air Content (%): Concrete Temp. (F): Ambient Temp. (F): Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

Test

Field Test Data

**Laboratory Test Data** 

		J. J				Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	<b>Tested</b>
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63		10/21/20	28	83,680	6,630	2	RES
1	2	4.01	12.63		10/21/20	28	80,130	6,340	2	RES
1	3	4.01	12.63		10/21/20	28	78,250	6,200	2	RES
						Aver	age (28 days)	6,390		

Initial Cure: Outside Final Cure: Moist Room

Comments: Not tested for plastic unit weight.

all cylinders werre cut due to improper consolidation and filling of molds. Locations of the pour are assumed to be trash

enclosure footings

Samples Made By: Terracon

Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples. **Services:** 

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Contractor

Reported To:

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc., (1) Axiom Northwest Construction, Inc.,

tiffani@axiomnw.com norm@axiomnw.com

**Reviewed By:** 

Feras El-Glassein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

**Report Number:** 02191565.0078 **Service Date:** 09/24/20 **Report Date:** 

11/08/20

Task: 09 - Portland Cement Concrete Testing - Building Elements

Lenexa, KS 66219-5102

913-492-7777

Client **Project** 

Axiom Northwest Construction, Inc. DCI - Lee's Summit 2001 Shamrock Rd Attn: Norm Hellings 2232 Broadway Lee's Summit, MO

Suite 101

Everett, WA 98201 Project Number: 02191565

**Material Information** Sample Information

**Specified Strength:** Sample Date: 09/24/20 **Sample Time:** 

> Sampled By: Contractor

Mix ID: **Weather Conditions:** 

Supplier: **Accumulative Yards: Batch Size (cy):** 

**Batch Time:** Plant: **Placement Method:** Truck No.: Ticket No.: Water Added Before (gal): Water Added After (gal): Field Test Data

**Sample Location:** 

**Placement Location:** Not provided Result Test **Specification** 

Air Content (%): Concrete Temp. (F): Ambient Temp. (F): Plastic Unit Wt. (pcf): Yield (Cu. Yds.):

**Laboratory Test Data** 

=aboratory root =ata						Age at	Maximum	Compressive		
Set	Specimen	Avg Diam.	Area	Date	Date	Test	Load	Strength	Fracture	Tested
No.	ID	(in)	(sq in)	Received	Tested	(days)	(lbs)	(psi)	Type	By
1	1	4.01	12.63		10/22/20	28	69,590	5,510	2	RES
1	2	4.01	12.63		10/22/20	28	66,130	5,240	2	RES
1	3	4.01	12.63		10/22/20	28	64,910	5,140	2	RES
						Aver	age (28 days)	5,300		

Initial Cure: Outside Final Cure: Moist Room

Comments: Not tested for plastic unit weight.

Cylinders were cut due to improper consolidation and dimensions.

Samples Made By: Terracon

**Services:** Sample fresh concrete at the placement locations, perform required field tests and cast compressive strength samples.

Standard test methods include ASTM: C31, C39, C138, C143, C172, C173 or C231, C1064 and C1231.

Terracon Rep.: Contractor

Reported To:

Contractor: **Axiom Northwest Construction** 

**Report Distribution:** 

(1) Axiom Northwest Construction, Inc., norm@axiomnw.com

(1) Axiom Northwest Construction, Inc.,

tiffani@axiomnw.com

**Reviewed By:** 

Feras El-Glassein Project Manager

Test Methods: ASTM C 31, ASTM C39, ASTM C138, ASTM C143, ASTM C172, ASTM C231, ASTM C1064, ASTM C1231

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.