

Environmental
Geotechnical Engineering
Geophysical Technology
Materials Testing
Field Inspections & Code Compliance

September 23, 2025

Mr. Brian Maenner Vice President of Development Intrinsic Development 3622 Endeavor Avenue Columbia, Missouri 65201

RE: Special Inspection Report No. 5

Village at Discovery Park – Lot 5 1900 NE Discovery Avenue Lee' Summit, Missouri

Report Period: May 25, 2025 to June 21, 2025

Permit No.: PRCOM20244782 UES Project No.: A23129.00089.005 Legacy Project No: J044702.06

Dear Mr. Maenner:

This letter with attachments will constitute our Special Inspection transmittal for the above referenced project. Representatives of UES have provided field observation and testing services for reinforced concrete and drilled and epoxy-grouted reinforcing steel during the report period. Our services have been provided on a part-time basis as scheduled by representatives of Intrinsic Development. The compliance of materials or work not observed by our personnel is not addressed, or implied, by this or any previous report.

Summary of Activities

Reinforced Concrete

Placement of the reinforcing steel, anchor bolts, and concrete was observed within the referenced foundation excavations and at the following locations:

June 11	- Stair tower slab-on-grade at Line B.9 to D, 1 to 2 and Line H.5 to J, 5 to 6.1
June 13	- Ribbon slab around the elevator pit at Line C to C.3, 4 to 4.5

Field tests were performed and compressive strength test specimens cast with samples of the concrete placed in the referenced locations. The recent concrete compressive strength test results are enclosed.

<u>Drilled and Epoxy-Grouted Reinforcing Steel</u>

During placement of concrete for the stem walls at Line 6.1, H.5 to J and Line B.9, 1 to 2, the vertical dowels installed for the masonry walls were not the size or spacing indicated in the project plans. Installation of the drilled and epoxy-grouted replacement reinforcing steel vertical dowels at the referenced locations was observed on June 9. The drilled holes were observed for the required spacing, depth, diameter, and cleaning procedures. Installation of the reinforcing steel dowels was

Steve Damron

CMT Department Manager

observed with respect to RFI #4 for the specified reinforcing steel diameter, grade, embedment, projection, orientation, spacing, configuration, and type of epoxy used.

During placement of the elevator pit walls at Line C to C.4, 4 to 4.5, the hooked dowels for the slab-on-grade were not installed. Installation of the drilled and epoxy-grouted reinforcing steel hooked dowels at the referenced location was observed on June 11. The drilled holes were observed for the required spacing, depth, diameter, and cleaning procedures. Installation of the reinforcing steel dowels was observed with respect to RFI #5 for the specified reinforcing steel diameter, grade, embedment, projection, orientation, spacing, configuration, and type of epoxy used.

Status of Compliance

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

Closure

The results of our field observations and testing were reported to authorized 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,

PETER
PETER
PE-2009009318

Peter | Brull P.E.
Senior Engineer

Attachments: Concrete Cylinder Test Results

RFI #4 RFI #5

cc: Mr. Joe Frogge – City of Lee's Summit

Mr. Aaron Addis – Intrinsic Development

Mr. John Grahovac – Intrinsic Development

Mr. Forrest Walsh – Intrinsic Development

Mr. AJ Dolph - Rosemann & Associates, PC

Ms. Cindy Senecal – McClure Vision

UES S.I. File

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Village at Discovery Park – Lot 5 Variance/Discrepancy List

NOTE: Items resolved during the report period are shaded

Variance Date Date
Number Opened Closed

Description



Report Date: 07/14/2025

Client: Intrinsic Development

Project: A23129.00089.005

Village at Discovery Park - Lot 5 J044702.06

Lee's Summit, MO

Concrete Cylinder Test Results

General Contractor: Intrinsic Development Ave. Temperature/Weather: 88°F Sunny

Site Contact: John Grahovac Report No.: 211921

Contractor: RHEMA Construction Group Set No.: 1

Sample Location: Slabs-on-grade at Line C to D, 1 to 2, Line H.5 to J, 5 to 6 Cast Date: 06/11/2025

FIELD DATA (ASTM C31)

Slump, ASTM C143 (in.):	5.25	Supplier:	Geiger Ready-Mix
Air Content, ASTM C231 (%):	4.1	Mix Design:	P4OC536V450
Conc. Temp., ASTM C1064 (°F):	85	Truck/Ticket No.:	928/1719371
Ambient Temp. (°F):	88	Batch Time:	12:30:00
Unit Weight, ASTM C138 (p.c.f.):		Sample Time:	13:15:00
Yield, ASTM C138 (ft.³):		Mixing Time (min.):	45
Truck/Accum. Quantity (yd.³):	10/10	Initial Curing Method:	Sealed
Sampled From, ASTM C172:	Truck Chute	Cylinders Cast By:	DALLIN JONATHAN. SEELEY
Specified Strength (psi):	4,000	Received in Lab:	06/12/2025
Average Strength (psi):	5,410	Condition Received:	Satisfactory
Field Condition:	Satisfactory		

Laboratory Data (ASTM C39 / C1231 / C617)

Cylinder ID/ Report No.	Cylinder Weight (lbs.)	Cross Sec. Area (sq.in.)	Cylinder Diameter (in.)	Maximum Load (Ibs.)	Compressive Strength (psi)	Fracture/ Capping Type *	Test Date	Cylinder Test Age (day)
211921-1-1		12.69	4.02	51290	4040	5/N	06/18/2025	7
211921-1-2		12.57	4.00	65560	5220	5/N	07/09/2025	28
211921-1-3		12.57	4.00	68830	5480	2/N	07/09/2025	28
211921-1-4		12.57	4.00	69440	5530	5/N	07/09/2025	28
211921-1-5							01/01/1900	HOLD

^{*} Fracture type as shown in Figure 2, ASTM C39 / Capping type: N - Neoprene Pads (C1231); B - Bonded (C617); G - Ground

Remarks:

Tested By: ANGELA D. COATES (6/18/2025)

ANGELA D. COATES (7/9/2025)

Concrete Test Cylinders

Village at Discovery Park - Lot 5 J044702.06 | Lee's Summit, MO 06/11/2025 | UES Project No. A23129.00089.005



CC: Addis, Aaron (Intrinsic Development) (e)
Maenner, Brian (Intrinsic Development) (e)
Walsh, Forrest (Intrinsic Development) (e)
Senecal, Cindy (McClure Vision) (e)

Dolph, AJ (Rosemann & Associates, PC) (e) Peterson, Earl (Intrinsic Development) (e) Grahovac, John (Intrinsic Development) (e)

Notice: The UES representative is on site solely to observe specific operations and report opinions to our client. The presence and activities of the UES field representative do not relieve the contractor's obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods and sequences of construction. Laboratory testing was performed in general accordance with project requirements unless otherwise noted. The laboratory results only represent the material sampled /tested. This report shall not be reproduced, except in full, without written approval of UES, Inc.



Report Date: 07/17/2025

Client: Intrinsic Development

Project: A23129.00089.005

Village at Discovery Park - Lot 5 J044702.06

Lee's Summit, MO

Concrete Cylinder Test Results

General Contractor: Intrinsic Development

Ave. Temperature/Weather:

Site Contact: John Grahovac

Report No.: 212546

Contractor: RHEMA Construction Group

Sample Location:

Ribbon slab-on-grade for the elevator pit at Line C to C.3, 4 to 4.5

Cast Date: 06/13/2025

Set No.: 1

FIELD DATA (ASTM C31)

Slump, ASTM C143 (in.):	6.25	Supplier:	Geiger Ready-Mix
Air Content, ASTM C231 (%):	1.4	Mix Design:	P4OC570V446
Conc. Temp., ASTM C1064 (°F):	76	Truck/Ticket No.:	925/1720599
Ambient Temp. (°F):	72	Batch Time:	10:05:00
Unit Weight, ASTM C138 (p.c.f.):		Sample Time:	10:40:00
Yield, ASTM C138 (ft.3):		Mixing Time (min.):	35
Truck/Accum. Quantity (yd.³):	10/30	Initial Curing Method:	Sealed
Sampled From, ASTM C172:	Truck Chute	Cylinders Cast By:	SETH THOMAS. LITTLESTONE
Specified Strength (psi):	4,000	Received in Lab:	06/14/2025
Average Strength (psi):	6,107	Condition Received:	Satisfactory
Field Condition:	Satisfactory		

Laboratory Data (ASTM C39 / C1231 / C617)

Cylinder ID/ Report No.	Cylinder Weight (lbs.)	Cross Sec. Area (sq.in.)	Cylinder Diameter (in.)	Maximum Load (Ibs.)	Compressive Strength (psi)	Fracture/ Capping Type *	Test Date	Cylinder Test Age (day)
212546-1-1		12.57	4.00	61010	4860	5/N	06/20/2025	7
212546-1-2		12.57	4.00	78560	6250	2/N	07/11/2025	28
212546-1-3		12.57	4.00	76350	6080	2/N	07/11/2025	28
212546-1-4		12.57	4.00	75280	5990	2/N	07/11/2025	28
212546-1-5							01/01/1900	HOLD

^{*} Fracture type as shown in Figure 2, ASTM C39 / Capping type: N - Neoprene Pads (C1231); B - Bonded (C617); G - Ground

Remarks:

Tested By: ANGELA D. COATES (6/20/2025)

ANGELA D. COATES (7/11/2025)

Reviewed by: Peter F. Brull ()

Concrete Test Cylinders

Village at Discovery Park - Lot 5 J044702.06 | Lee's Summit, MO 06/13/2025 | UES Project No. A23129.00089.005



CC: Addis, Aaron (Intrinsic Development) (e)
Maenner, Brian (Intrinsic Development) (e)
Walsh, Forrest (Intrinsic Development) (e)
Senecal, Cindy (McClure Vision) (e)

Dolph, AJ (Rosemann & Associates, PC) (e) Peterson, Earl (Intrinsic Development) (e) Grahovac, John (Intrinsic Development) (e)

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Project: 2023-006 DPLS-Lot 5 1900 NE Discovery Ave. Lee's Summit, Missouri 64064

RFI #4: Incorrect Dowel Spacing and Rebar Size

Status Closed on 06/02/25

To Cindy Senecal (McClure Engineering) (Response From John Grahovac (Intrinsic Development)

Required)

Date InitiatedMay 29, 2025Due DateJun 1, 2025

Location Project Stage Under Construction

Cost Impact TBD Schedule Impact No

Spec Section 032000 - Concrete Reinforcing Cost Code 03-3100 - Concrete-Structural

Drawing Number Reference

Linked Drawings

Received From Jose Carlos Velez (Rhema Construction Group)

Copies To Aaron Addis (Intrinsic Development), Brian Maenner

(Intrinsic Development), Earl Peterson (Intrinsic Development), Cindy Senecal (McClure Engineering), Jacob Streich (Intrinsic Development),

Engineering), Jacob Streich (Intrinsic Developmen Jose Carlos Velez (Rhema Construction Group)

Activity

Question

Question from John Grahovac Intrinsic Development on Thursday, May 29, 2025 at 02:05 PM CDT

Rhema Construction used the wrong size of rebar and spacing for dowels at 2 locations (both stair towers). See attached markups for locations.

Instead of "#6 dowels 8" O.C. for CMU wall above", Rhema installed #5 dowels every 2'.

- 1. Can Rhema drill and epoxy in the #6 dowels at 8" OC? Please specify embedment depth and epoxy (prefer Dewalt AC200 over Hilti for cost savings).
- 2. Where a #6 dowel at 8" OC would occupy the same CMU cavity as a #5 dowel installed every 2', is it permissible skip the #6 dowel?

Attachments

Lot 5 - RFI#4 S100B Markup.pdf, Lot 5 - RFI#4 S100A Markup.pdf

Official Response

Response from Cindy Senecal McClure Engineering on Friday, May 30, 2025 at 09:48 AM CDT

- 1. Where dowels are missing, #6 dowels 8" o.c. may be installed with Dewalt AC200+ adhesive. Dowels must extend thru the 8" concrete slab and 16" into the foundation wall for a total length of 24".
- 2. It is permissable to skip installing the dowels where they would occupy the same CMU cavity as an already installed #5 bar.

All Replies

Response from Cindy Senecal McClure Engineering on Friday, May 30, 2025 at 09:48 AM CDT

- 1. Where dowels are missing, #6 dowels 8" o.c. may be installed with Dewalt AC200+ adhesive. Dowels must extend thru the 8" concrete slab and 16" into the foundation wall for a total length of 24".
- 2. It is permissable to skip installing the dowels where they would occupy the same CMU cavity as an already installed #5 bar.

Project: 2023-006 DPLS-Lot 5 1900 NE Discovery Ave. Lee's Summit, Missouri 64064

RFI #5: Omitted Rebar at Elevator Pit Walls

Status Closed on 06/10/25

To Cindy Senecal (McClure Engineering) (Response From John Grahovac (Intrinsic Development)

Required)

Date InitiatedJun 5, 2025Due DateJun 8, 2025

Location Project Stage Under Construction

Cost Impact Schedule Impact

Spec Section 032000 - Concrete Reinforcing Cost Code 03-3100 - Concrete-Structural

Drawing Number Reference

Linked Drawings

Received From Jose Carlos Velez (Rhema Construction Group)

Copies To Aaron Addis (Intrinsic Development), Peter Brull

(UES), John Grahovac (Intrinsic Development), Earl Peterson (Intrinsic Development), Jose Carlos Velez

(Rhema Construction Group)

Activity

Question

Question from John Grahovac Intrinsic Development on Thursday, Jun 5, 2025 at 04:26 PM CDT

Rhema Construction omitted rebar that ties the elevator pit walls to the slab. See attached image and markup for reference.

Please specify embedment depth and epoxy for drill/epoxy of omitted rebar.

Thank you.

Attachments

060525-lot-elevator_pit_image.jpg, 060525-lot5-omitted_rebar_markup.pdf

Official Response

Response from Cindy Senecal McClure Engineering on Tuesday, Jun 10, 2025 at 12:15 PM CDT

Drill vertically 8 inches into top existing concrete wall and install #5 bent bars 12 inches o.c. with Dewalt AC200+ adhesive. Bent bar horizontal leg to be minimum 24" long. Bent bar vertical leg (assuming top of wall is 8" lower than top of slab) to be 14" long (provide minimum 2" cover from top of slab to bar).

Official Response

Response from John Grahovac Intrinsic Development on Tuesday, Jun 10, 2025 at 11:46 AM CDT

Cindy,

Please see the attached revised markup showing the as-built T.O.W.

Please specify a vertical embedment depth.

Thank you.

Attachments

 $060525\text{-lot}-omitted_rebar_markup_revision.pdf, 060525\text{-lot}-elevator_pit_image.jpg$

Official Response

Response from Cindy Senecal McClure Engineering on Tuesday, Jun 10, 2025 at 07:52 AM CDT

Drill horizontally 6 inches into face of existing concrete wall and install straight 30 inch long #5 bars 12 inches o.c. with Dewalt AC200+ adhesive.

Project: 2023-006 DPLS-Lot 5

All Replies

Response from Cindy Senecal McClure Engineering on Tuesday, Jun 10, 2025 at 12:15 PM CDT

Drill vertically 8 inches into top existing concrete wall and install #5 bent bars 12 inches o.c. with Dewalt AC200+ adhesive. Bent bar horizontal leg to be minimum 24" long. Bent bar vertical leg (assuming top of wall is 8" lower than top of slab) to be 14" long (provide minimum 2" cover from top of slab to bar).

Response from John Grahovac Intrinsic Development on Tuesday, Jun 10, 2025 at 11:46 AM CDT

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Please see the attached revised markup showing the as-built T.O.W.

Please specify a vertical embedment depth.

Thank you.

Attachments

060525-lot5-omitted_rebar_markup_revision.pdf, 060525-lot-elevator_pit_image.jpg

Response from Cindy Senecal McClure Engineering on Tuesday, Jun 10, 2025 at 07:52 AM CDT

Drill horizontally 6 inches into face of existing concrete wall and install straight 30 inch long #5 bars 12 inches o.c. with Dewalt AC200+ adhesive.