Project: Home Ranch Lodge

Project No.: 20-11733

Date: 3/17/22 Time: 3.5 Mileage: 35 Engr. /Tech: TT

Location: Clark, CO Client: Joe Robbins Architect Report No.: 1-P

Work Performed:

As requested, we visited the project site on today's date to observe the pier drilling operations. The pier drilling contractor, D&D Enterprises, completed two (2) 16-inch diameter test piers.

The test piers were advanced outside of the proposed structure since concrete was not available and we recommended the piers not be left open overnight.

The test piers were advanced to a depth of 20 feet below the existing ground surface (bgs). Natural clays were encountered in the upper 16 to 19 feet of the pier. Natural sands and gravels were encountered at a depth of 19 feet bgs in the southwest portion of the building and 16 feet bgs in the southeast portion of the building. Occasional cobbles were encountered in the sands and gravels, but the piers were advanced to the minimum depth required.

Verbal Discussions:

Paul Stoll of Snake River Construction and Joe Duska with D&D was notified of todays observations.



Project No.: 20-11733 Project: Home Ranch Lodge Time: 7.5 Location: Clark, CO

Client: Joe Robbins Architect

Report No.: 2-P

Date: 3/18/22 Mileage: 35 Engr. /Tech: TT

Work Performed:

As requested, we visited the project site on today's date to observe the pier drilling operations. The pier drilling contractor, D&D Enterprises, completed eight (8) 16-inch diameter piers. Summary logs of the piers completed on this date are attached.

We also observed the placement of the reinforcing steel and concrete in the piers completed on this date.

A plan showing the pier locations is also attached.

Remarks:

Based on our observations, the piers completed on this date appeared to be constructed in general accordance with the structural plans and our previous recommendations.

Piers 22, 23 and 24, which were existing 8-inch diameter piers in the original Lodge, were removed during demolition operations. Based on conversations with the structural engineer, Lynn Kramer, it was determined that a new 16-inch diameter pier would be placed at the intersection of the foundation walls between piers 22 and 23 on the structural plans. This pier is designated #166 on the attached plan. An additional 16-inch diameter pier will also be constructed in the foundation wall line between pier #164 and #160. This pier is designated pier #167 on the attached plan.

In addition, pier #74 and #75, which were exisitng 8-inch piers for the existing lodge, were also removed during demolition operations. Based on further conversations with Lynn Kramer, piers #116 and #117 will be moved as close as possible to the foundation wall corners where the existing piers were removed.

Verbal Discussions:



Project: Home Ranch Lodge

dge **Project No.:** 20-11733

Date: 3/18/22

Report No.: 2-P

Pier No	Pier Dia.	Depth in Clay (ft.)	Depth in S&G (ft.)	Total Length Drilled (ft.)	Top of Pier Concrete Relative to Excavation Grade (B.E.G.)	Condition of Walls	Depth of Water in Hole	Supporting Stratum
136	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
138	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
137	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
139	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
142	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
141	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
134	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
135	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G

Note: AEG= Above Existing Grade S&G= Sand and Gravels

REVIEWED FOR CODE COMPLIANCE

Proiect:	Home Ranch Lodge	Project No.:	20-11733	Date:	3/21/22
	5	•		Time:	5.5
Location:	Clark, CO	Report No.:	3-P	Mileage:	20
Client:	Joe Robbins Architect			Engr. /Tech:	JE

Work Performed:

As requested, we visited the project site on today's date to observe the pier drilling operations. The pier drilling contractor, D&D Enterprises, completed ten (10) 16-inch diameter piers. Summary logs of the piers completed on this date are attached.

We also observed the placement of the reinforcing steel and concrete in the piers completed on this date.

Remarks:

Based on our observations, the piers completed on this date appeared to be constructed in general accordance with the structural plans and our previous recommendations.

Verbal Discussions:



Project: Home Ranch

Project No.: 20-11733

Date: 3/21/22

Report No.: 3-P

Pier No	Pier Dia.	Depth in Clay (ft.)	Depth in S&G (ft.)	Total Length Drilled (ft.)	Top of Pier Concrete Relative to Excavation Grade (B.E.G.)	Condition of Walls	Depth of Water in Hole	Supporting Stratum
163	16"	16'	4'	20'	6" AEG	Rough	Dry	S&G
162	16"	16'	4'	20'	6" AEG	Rough	Dry	S&G
166	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
161	16"	17'	3'	20'	6" AEG	Rough	Dry	S&G
167	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
160	16"	17'	3'	20'	6" AEG	Rough	Dry	S&G
154	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
158	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
157	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
154	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G

Note: AEG= Above Existing Grade S&G= Sand and Gravels

> REVIEWED FOR CODE COMPLIANCE

Project:	Home Ranch Lodge	Project No.:	20-11733	Date:	3/22/22
,.	5			Time:	8.0
Location:	Clark, CO	Report No.:	4-P	Mileage:	35
Client:	Joe Robbins Architect			Engr. /Tech:	TT

Work Performed:

As requested, we visited the project site on today's date to observe the pier drilling operations. The pier drilling contractor, D&D Enterprises, drilled eighteen (18) 16-inch diameter piers. Summary logs of the piers completed on this date are attached.

We also observed the placement of the reinforcing steel and concrete in the piers completed on this date, with the exception of piers #146, #147, #148 and #149. The contractor did not have enough concrete to complete these piers.

Remarks:

Based on our observations, the piers completed on this date appeared to be constructed in general accordance with the structural plans and our previous recommendations.

Verbal Discussions:



Project: Home Ranch

Project No.: 20-11733

Date: 3/22/22

Report No.: 4-P

Pier No	Pier Dia.	Depth in Clay (ft.)	Depth in S&G (ft.)	Total Length Drilled (ft.)	Top of Pier Concrete Relative to Excavation Grade (B.E.G.)	Condition of Walls	Depth of Water in Hole	Supporting Stratum
140	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
143	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
144	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
145	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
146	16"	19'	1'	20'	6" AEG	Rough	Dry	S&G
150	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
149	16"	17'	3'	20'	6" AEG	Rough	Dry	S&G
164	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
165	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
153	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
156	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
155	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
152	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
151	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
147	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
148	16"	18'	2'	20'	6" AEG	Rough	Dry	S&G
111	16"	17'	3'	20'	6" AEG	Rough	Dry	S&G
112	16"	17'	3'	20'	6" AEG	Rough	Dry	S&G

Note: AEG= Above Existing Grade S&G= Sand and Gravels

> **REVIEWED** FOR CODE COMPLIANCE

Project:	Home Ranch Lodge	Project No.:	20-11733	Date:	3/23/22
,	5			Time:	2.5
Location:	Clark, CO	Report No.:	5-P	Mileage:	35
	Joe Robbins Architect	•		Engr. /Tech:	TT

Work Performed:

As requested, we visited the project site on today's date to observe the placement of concrete for four piers drilled the previous day.

We observed the placement of the reinforcing steel and concrete for piers #146, #147, #148 and #149. The piers were observed to have no caving or groundwater prior to placement of concrete.

Remarks:

Based on our observations, the piers completed on this date appeared to be constructed in general accordance with the structural plans and our previous recommendations.

Verbal Discussions:



Project:	Home Ranch Lodge	Project No.:	11733	Date:	4/11/22
,				Time:	6.5
Location:	Clark, CO	Report No.:	6-P	Mileage:	70
	Joe Robbins Architect	•		Engr. /Tech:	TT/RE

Work Performed:

As requested, we visited the project site on today's date to observe the pier drilling operations. The pier drilling contractor, D&D Enterprises, completed seven (7) 16-inch diameter piers. Summary logs of the piers completed on this date are attached.

We also observed the placement of the reinforcing steel and concrete in the piers completed on this date.

Remarks:

Based on our observations, the piers completed on this date appeared to be constructed in general accordance with the structural plans and our previous recommendations.

Verbal Discussions:

Paul Stoll of Snake River Construction and Joe Duksa of D&D Enterprises were advised of todays observations.



Project: Home Ranch Lodge

Project No.: 20-11733

Date: 4/11/22

Report No.: 6-P

Pier No	Pier Dia. (in.)	Depth in Clay (ft.)	Depth in Sands and Gravels (ft)	Total Length Drilled (ft.)	Top of Pier Concrete Relative to Excavation Grade (B.E.G)	Condition of Walls	Depth of Water in Hole	Supporting Stratum	
115	16"	17'	(ft.) 3'	20'		Rough	Dry	S + G	
116	16"	17'	3'	20'		Rough	Dry	S + G	
118	16"	19'	1'	20'		Rough	Dry	S + G	
120	16"	19'	1'	20'		Rough	Dry	S + G	
117	16"	19'	1'	20'		Rough	Dry	S + G	
114	16"	17'	3'	20'		Rough	Dry	S + G	
113	16"	17'	3'	20'		Rough	Dry	S + G	
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Project:	Home Ranch Lodge	Project No.:	11733	Date:	4/26/22
,	5			Time:	2.5
Location:	Clark, CO	Report No.:	7-P	Mileage:	36
	Joe Robbins Architect	•		Engr. /Tech:	JS

Work Performed:

As requested, we visited the project site on today's date to observe the pier drilling operations. After waiting onsite for over an hour we were informed the drilling contractor would not be drilling on today's date.

Verbal Discussions:

Paul Stoll of Snake River Construction was aware of today's site visit.



Project:	Home Ranch Lodge	Project No.:	20-11733	Date:	4/28/22
	9			Time:	8.5
Location:	Clark, CO	Report No.:	8-P	Mileage:	18
	Joe Robbins Architect			Engr. /Tech:	JE

Work Performed:

As requested, we visited the project site on today's date to observe the pier drilling operations. The pier drilling contractor, D&D Enterprises, completed 25 (twenty-five) 16-inch diameter piers. Summary logs of the piers completed on this date are attached.

We also observed the placement of the reinforcing steel and concrete in the piers completed on this date.

Remarks:

Based on our observations, the piers completed on this date appeared to be constructed in general accordance with the structural plans and our previous recommendations.

Verbal Discussions:

Paul Stoll of Snake River Construction and Joe Duksa of D&D Enterprises were advised of todays observations.



NORTHWEST COLORADO CONSULTANTS, INC.

PIER OBSERVATION DATA SHEET

Project :	Home Ranch	Project No.:	20-11733	Date:	4/28/22	
		Report No.:	8-P			

Pier No.	Pier Dia. (in)	Depth in Clay (ft)	Depth in S&G (ft)	Total Length Drilled (ft)	Top Pier Concrete Relative to Excavation Grade (B.E.G)	Condition of Walls	Depth of Water in Hole	Supporting Stratum
110	16	19	1	20	6" AEG	Rough	Dry	S&G
109	16	19	1	20	6" AEG	Rough	Dry	S&G
108	16	18	2	20	6" AEG	Rough	Dry	S&G
107	16	19	1	20	6" AEG	Rough	Dry	S&G
104	16	19	1	20	6" AEG	Rough	Dry	S&G
105	16	19	1	20	6" AEG	Rough	Dry	S&G
106	16	19	1	20	6" AEG	Rough	Dry	S&G
103	16	19	1	20	6" AEG	Rough	Dry	S&G
128	16	19	1	20	6" AEG	Rough	Dry	S&G
102	16	19	1	20	6" AEG	Rough	Dry	S&G
127	16	19	1	20	6" AEG	Rough	Dry	S&G
101	16	19	1	20	6" AEG	Rough	Dry	S&G
100	16	19	1	20	6" AEG	Rough	Dry	S&G
125	16	19	1	20	6" AEG	Rough	Dry	S&G
126	16	18	2	20	6" AEG	Rough	Dry	S&G
129	16	19	1	20	6" AEG	Rough	Dry	S&G
130	16	19	1	20	6" AEG	Rough	Dry	S&G
131	16	19	1	20	6" AEG	Rough	Dry	S&G
132	16	19	1	20	6" AEG	Rough	Dry	S&G
133	16	18	1	20	6" AEG	Rough	Dry	S&G
124	16	18	2	20	6" AEG	Rough	Dry	S&G
122	16	18	2	20	6" AEG	Rough	Dry	S&G
131	16	18	2	20	6" AEG	Rough	Dry	S&G
119	16	19	1	20	6" AEG	Rough	Dry	S&G

Notes: AEG=Above Existing Grade S&G=Sand and Gravels

> REVIEWED FOR CODE COMPLIANCE

Project:	Home Ranch Lodge	Project No.:	11733	Date:	7/22/22
				Time:	6.0
Location:	Clark, CO	Report No.:	9-P	Mileage:	36
	Joe Robbins Architect	active provide a first of		Engr. /Tech:	CR

Work Performed:

As requested, we visited the project site twice on today's date to observe the pier drilling operations. The pier drilling contractor, D&D Enterprises, completed six (6) 16-inch diameter piers. Summary logs of the piers completed on this date are attached.

We also observed the placement of the reinforcing steel and concrete in the piers completed on this date.

Remarks:

Based on our observations, the piers completed on this date appeared to be constructed in general accordance with the structural plans and our previous recommendations.

Verbal Discussions:

Paul Stoll of Snake River Construction was advised of todays observations.



Project:
Home Ranch Lodge
Project No.:
11733
Date:
7/22/22

Report No.:
9-P

Pier No	Pier Dia. (in.)	Depth in Clay (ft.)	Depth in Sand and Gravels (ft.)	Total Length Drilled (ft.)	Top of Pier Concrete Relative to Excavation Grade (A.E.G)	Condition of Walls	Depth of Water in Hole	Supporting Stratum
1	16	15	5	20	6" AEG	Rough	Dry	S&G
2	16	15	5	20	6" AEG	Rough	Dry	S&G
3	16	15	5	20	6" AEG	Rough	Dry	S&G
4	16	17	3	20	6" AEG	Rough	Dry	S&G
5	16	18	2	20	6" AEG	Rough	Dry	S&G
6	16	18	2	20	6" AEG	Rough	Dry	S&G

Note: AEG=Above Existing Grade S&G=Sand and Gravels

> REVIEWED FOR CODE COMPLIANCE

Project:	Home Ranch Lodge	Project No.:	20-11733	Date:	3/21/22
	0	•		Time:	2.0
Location:	Clark, CO	Report No.:	1-HP	Mileage:	20
	Joe Robbins Architect	•		Engr. /Tech:	JE

Work Performed:

As requested, we visited the project site on today's date to observe the screw pile installation operations. The pile installation contractor, D&D Enterprises, installed (4) 1.75-inch double helix screw piles. The piles are provided by AB Chance and include an 8-inch and 10-inch helix.

A summary table of the piles completed on this date is attached.

Remarks:

Based on our observations and measurements, the piles completed on this date appeared to be installed to the required torque.

Verbal Discussions:

Paul Stoll of Snake River Construction and Joe Duska of D&D was aware of today's observations and measurements.



NORTHWEST COLORADO CONSULTANTS, INC.

HELICAL SCREW PILE OBSERVATION DATA SHEET

Proje	ect: Ho	me Ranch L	odge l	Project No.:	20-11733 Date: 3/21	/22
				Report No.:	1-HP	
Pile No.	Pile Type	Total Length Supplied (ft)	Finished Cut-off Length (ft)	Torque (ft-lbs)	Remarks	
HP #4	SS 175	15'	15'	6,000	30 Kip Capacity,12 Shear Pins (Interior Underpin)	
HP #5	SS 175	15'	15'	6,000	30 Kip Capacity,12 Shear Pins (Interior Underpin)	
HP #6	SS 175	15'	15'	6,000	30 Kip Capacity, 12 Shear Pins (Interior Underpin)	
HP #7	SS 175	17'	17'	8,000	40 Kip Capacity, 16 Shear Pins (Interior Underpin)	

Pile Type: SS175 AB Chance: Lead Extension 5 Lead/5Ext Pipe Diameter: 1 ³/₄" Helix: 8"/10" Capacity: 50K Max Torque (ft-lbs): 100,000

> REVIEWED FOR CODE COMPLIANCE

Project:	Home Ranch Lodge	Project No.:	20-11733	Date:	3/22/22
	C C			Time:	1.0
Location:	Clark, CO	Report No.:	2-HP	Mileage:	0
Client:	Joe Robbins Architect	•		Engr. /Tech:	ТТ

Work Performed:

As requested, we visited the project site on today's date to observe the screw pile installation operations. The pile installation contractor, D&D Enterprises, installed (4) 1.75-inch double helix screw piles. The piles are provided by AB Chance and include an 8-inch and 10-inch helix.

A summary table of the piles completed on this date is attached.

Remarks:

Based on our observations and measurements, the piles completed on this date appeared to be installed to the required torque.

Verbal Discussions:

Paul Stoll of Snake River Construction and Joe Duska of D&D was aware of today's observations and measurements.



NORTHWEST COLORADO CONSULTANTS, INC.

HELICAL SCREW PILE OBSERVATION DATA SHEET

Project No.: 20-11733

			F	Report No.:	2-HP
Pile No.	Pile Type	Total Length Supplied (ft)	Finished Cut-off Length (ft)	Torque (ft-lbs)	Remarks
HP #8	SS 175	20'	18.5'	8,000	40 Kip Capacity, 16 Shear Pins (Interior Underpin)
HP #11	SS 175	20'	17'	8,000	40 Kip Capacity, 16 Shear Pins (Interior Underpin)
HP #12	SS 175	20'	17'	8,000	40 Kip Capacity, 16 Shear Pins (Interior Underpin)
HP #9	SS 175	17'	17'	8,000	40 Kip Capacity, 16 Shear Pins (Interior Underpin)

Pile Type: SS175 AB Chance: Lead Extension 5 Lead/5Ext Pipe Diameter: 1 ³⁄₄" Helix: 8"/10" Allowable Capacity: 50K Max Torque (ft-lbs): 10,000

Project: Home Ranch Lodge

REVIEWED FOR CODE COMPLIANCE

Date: 3/22/22