

DRILLED SHAFT LOG A.5-1.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A.5-1.6	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 6/9//2016	FINISH: 6/9/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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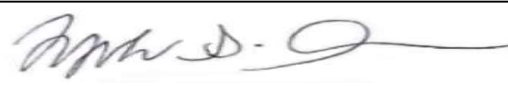
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	520.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	510.17

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	17
Rock Auger Length (FT)	13.33
Rock Socket Length	10
Construc. Shaft Length	27.58

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	x
Airlift	
Pump	x
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
30.33	
	30.33
Ave. Shaft Bottom Elev.:	30.33
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
9		Gray Shale excavated with a soil auger	
11		Gray Shale excavated with a soil auger	
13		Gray Shale excavated with a soil auger	
15		Gray Shale excavated with a soil auger	
17	523.5	SOIL AUGER REFUSAL @ 17.0'.	
18		Hard Dark Gray Shale.	
20		Hard Dark Gray Shale.	
22		Medium, wet, Gray Shale from 20' to 22.5'.	
24		Hard Dark Gary Shale.	
26		Hard Dark Gray Shale.	
28		Hard Dark Gray Shale.	
30.33	510.17	ROCK CORING TERMINATED AT 30.33'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/11/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ENCOUNTERED HARD SHALE AT APPROXIMATELY 17' TO TERMINATIO
DEPTH OF 30.33, ON LIMESTONE.



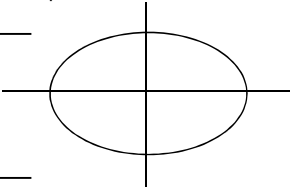
DRILLED SHAFT LOG A-1.6



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. D-7	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 36" DATE

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	517

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	6
Rock Socket Length	6'
Construc. Shaft Length	6.75

DRILLING SLURRY	
Slurry Type and Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X Airlift Pump X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
6.5	_____
	
_____	6.5
Ave. Shaft Bottom Elev.:	
6.5	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

DRILLED SHAFT LOG A.1-2

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A. 1-2	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Joseph Osuma, P.E.	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 6/16//2016	FINISH: 6/17/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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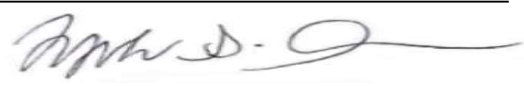
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	519.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528.5
Msd Avg. Shaft Bot Elev.	506

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12
Rock Auger Length (FT)	22.5
Rock Socket Length (FT)	5'
Construc. Shaft Length	31.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
34.5	
	34.5
Ave. Shaft Bottom Elev.: 34.5	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7	533.5	SOIL AUGER REFUSAL @ 7'.	
9		Rock Fragments and Clay.	
14		Highly Weathered Brown Limestone Fragments	
16		Highly Weathered Brown Limestone Fragments	
18		Rock Fragments and Clay.	
20	520.5	Clay with Rock Fragments. Excavated with a soil auger.	
24		Clay with Rock Fragments. Excavated with a soil auger.	
27	513.5	Clay with Rock Fragments. Excavated with a soil auger.	
29.5		Hard Gray Limestone.	
30		Hard Gray Limestone.	
32		Hard Gray Limestone.	
34		Hard Gray Limestone.	
34.5	506	ROCK CORING TERMINATED AT 34.5' ON LIMESTONE'.	

INSPE	DATE
	6/17/2016
INSPECTOR SIGNATURE	DATE

INSPECTOR SIGNATURE	DATE
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NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI.

DRILLED SHAFT LOG A.1-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A.1-3	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 6/23/2016		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	
FINISH: 6/2/3016			

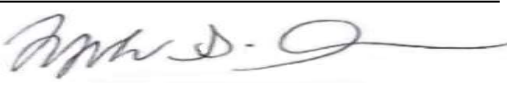
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528
Msd Avg. Shaft Bot Elev.	515.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12.5
Rock Auger Length (FT)	12.5
Rock Socket Length	5
Construc. Shaft Length	22.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
25	
	25
Ave. Shaft Bottom Elev.: 25	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12.5	528	SOIL AUGER REFUSAL @ 12.5'.	
14		Gray Limestone	
16		Gray Limestone	
18		Gray Limestone	
19		Highly decomposed shale exhibiting a soil structure of brown silty clay	
21		Highly decomposed shale exhibiting a soil structure of brown silty clay	
22		Hard gray limestone	
24		Hard gray limestone	
25	515.5	ROCK CORING TERMINATED AT 25.0'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/23/2016

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. INITIAL ROCK ENCOUNTERED WAS NOT SUFFICIENT FOR SUPPORT BEFORE TRANSITIONING INTO A CLAY LAYER. EXTENDED SHAFT TO REACH GOOD BEARING SURFACE.

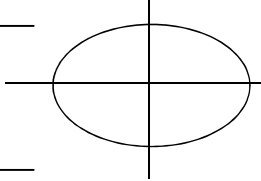
DRILLED SHAFT LOG A.1-4

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A. 1-4	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 6/24/2016	FINISH: 6/27/3016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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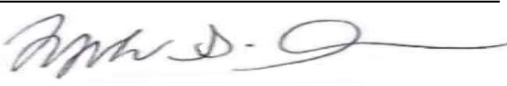
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	523.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528
Msd Avg. Shaft Bot Elev.	514.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12.5
Rock Auger Length (FT)	13.5
Rock Socket Length	5'
Construc. Shaft Length	23.25

DRILLING SLURRY	
Slurry Type & Manufacturer : N/A	
Slurry Meets Specifications? Y N	
CLEANOUT METHOD	
Bucket ☒	Airlift ☐ Pump ☒
Other:	
BOTTOM INSPECTION	
Visual ☐	Tape/Probe ☒
Record 2 depths to the bottom of finished shaft:	
26	26
	
Ave. Shaft Bottom Elev.: 26	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type <u>TEMP</u>	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12.5	528	SOIL AUGER REFUSAL @ 12.5'.	
14		Gray Limestone	
16		Gray Limestone	
17		Hrad Gary Limestone.	
19		Highly Weathered Fractured Rock and Sity Clay.	
21		Highly Weathered Fractured Rock and Sity Clay.	
23		Hrad Gary Limestone.	
24		Hrad Gary Limestone.	
26	514.5	ROCK CORING TERMINATED AT 26.0'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/30/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. INITIAL ROCK ENCOUNTERED WAS NOT SUFFICIENT FOR SUPPORT BEFORE TRANSITIONING INTO A CLAY LAYER. EXTENDED SHAFT TO REACH GOOD BEARING SURFACE.

DRILLED SHAFT LOG A.2-1.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A.2-1.6	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 6/13/2016	FINISH: 6/13/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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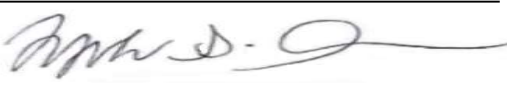
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	522.5
Msd Avg. Shaft Bot Elev.	504

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	18
Rock Auger Length (FT)	18.5
Rock Socket Length	6
Construc. Shaft Length	33.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
36.5	
	36.5
Ave. Shaft Bottom Elev.: 36.5	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10	530.5	Gray Shale.	
14		Gray Shale.	
18	522.5	SOIL AUGER REFUSAL @ 18.0'.	
22		Rock Fragments and Clay.	
23	517.5	Rock Fragments and Clay.	
24		Limestone with thin shale beds and clay seams	
26		Limestone with thin shale beds and clay seams	
28		Hard Limestone.	
30		Hard Limestone.	
32		Hard Limestone.	
34		Hard Limestone.	
36	504	ROCK CORING TERMINATED AT 28' ON LIMESTONE'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/14/2016

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. STEEL AND CONCRETE PLACEMENT SCHEDULED FOR 6/14/2016

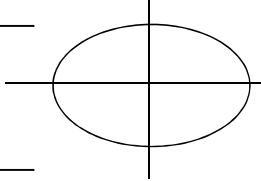
DRILLED SHAFT LOG A.2-1.9

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A.2-1.9	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 6/14/2016	FINISH: 6/16/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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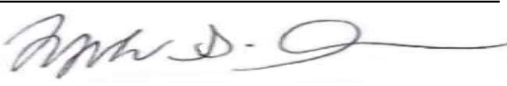
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	517.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	525
Msd Avg. Shaft Bot Elev.	502.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	15.5
Rock Auger Length (FT)	22.5
Rock Socket Length (FT)	8'
Construc. Shaft Length	35.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
38	38
	
Ave. Shaft Bottom Elev.:	38
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10.5	530	SOIL AUGER REFUSAL @ 10.5'.	
14		Rock Fragments and Clay.	
16		Rock Fragments and Clay.	
20		Rock Fragments and Clay.	
22	518.5	Clay with Rock Fragments. Excavated with a soil auger.	
24		Clay with Rock Fragments. Excavated with a soil auger.	
27	513.5	Clay with Rock Fragments. Excavated with a soil auger.	
28		Highly Weathered Shale.	
30		Hard Gray Shale.	
32		Hard Gray Shale.	
34		Hard Gray Shale.	
38	502.5	ROCK CORING TERMINATED AT 38' ON LIMESTONE'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/17/2016

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. TERMINATED SHAFT AT 38 FEET ON LIMESTONE WITH SOCKET IN GRAY SHALE. INFORMED THE STRUCTURAL ENGINEER OF THE MATERIAL ENCOUNTERED WITHIN THE SHAFT AND VERIFIED THE DESIGN LOAD. THE DRILLED SHAFT MEETS THE DESIGN CAPACITY AS CONSTRUCTED.

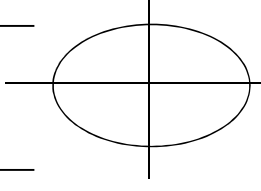
DRILLED SHAFT LOG A.5-2

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A.5-2	PLAN SHAFT DIAMETER 42"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugobodaga	ACTUAL SHAFT DIAMETER 42
		DATE	

DATE/TIME EXCAVATED START: 6/13/2016	FINISH: 6/13/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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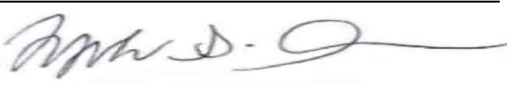
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529
Msd Avg. Shaft Bot Elev.	504.5

DIMENSIONS	
Soil Auger Dia. (IN)	42
Soil Shaft Length (FT)	11.5
Rock Auger Length (FT)	24.5
Rock Socket Length	7
Construc. Shaft Length	33.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
36	36
	
Ave. Shaft Bottom Elev.:	36
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8.5	532	SOIL AUGER REFUSAL @ 8.6'.	
12		Rock Fragments and Clay.	
16		Rock Fragments and Clay.	
22.5	518	Wet Clay and Rock Fragments.	
24		Wet Clay and Rock Fragments.	
25.5	515	Wet Clay and Rock Fragments.	
26		Limestone with thin shale beds and clay seams	
29		Hard Limestone.	
30		Hard Limestone.	
32		Hard Limestone.	
32		Hard Limestone.	
34		Hard Limestone.	
36	504.5	ROCK CORING TERMINATED AT 28' ON LIMESTONE'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/14/2016

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. STEEL AND CONCRETE PLACEMENT SCHEDULED FOR 6/14/2016



DRILLED SHAFT LOG A.6-7.1

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A.6-7.1	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 6/21/2016	FINISH: 6/22/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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ELEVATIONS	
Reference Elev.	_____
Grd. Surface Elev.	545
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	530
Msd Avg. Shaft Bot Elev.	525

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	15
Rock Auger Length(FT)	5
Rock Socket Length (FT)	5'
Construc. Shaft Length	12.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	_____
Pump	X
Other:	_____
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
20	_____
_____	20
Ave. Shaft Bottom Elev.: 20	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
3		Concrete from 3-5 removed with a core barrel.	
5		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
14		Brown silty CLAY.	
15	530	SOIL AUGER REFUSAL @ 15'.	
16		Hard Gray Limestone.	
18		Hard Gray Limestone.	
19		Hard Gray Limestone.	
20	525	ROCK CORING TERMINATED @ 20.0'.	

INSPECTOR SIGNATURE

DATE
6/23/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. INSTALLED TEST HOLE, CONCRETE PLACED ON 6/23/2016



DRILLED SHAFT LOG A.6-8

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A.6-8	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 6/20/2016	FINISH: 6/20/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
---	--------------------------	---

ELEVATIONS	
Reference Elev.	_____
Grd. Surface Elev.	548
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	532.5
Msd Avg. Shaft Bot Elev.	527

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	15.5
Rock Auger Length(FT)	5.5
Rock Socket Length (FT)	5'
Construc. Shaft Length	10.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	_____
Pump	X
Other:	_____
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
21	_____
_____	21
Ave. Shaft Bottom Elev.: 21	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
14		Brown silty CLAY.	
15.5	532.5	SOIL AUGER REFUSAL @ 15.5'.	
16		Hard Gray Limestone.	
18		Hard Gray Limestone.	
20		Hard Gray Limestone.	
21	527	ROCK CORING TERMINATED @ 21.0'.	

INSPECTOR SIGNATURE

DATE
6/21/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. INSTALLED TEST HOLE, ROCK CONTINUITY VERIFIED BY
DOWNHOLE INSPECTION ON 6/21/2016. CONCRETE PLACED ON 6/21/2016.

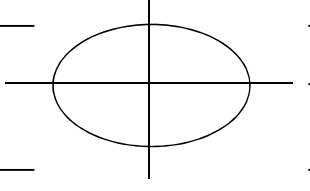
DRILLED SHAFT LOG A-1.8

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A-1.8	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 6/9/2016		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	
FINISH: 6/9/2016			

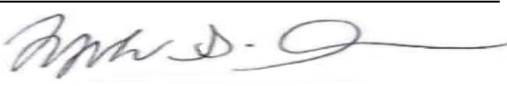
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	520.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	530
Msd Avg. Shaft Bot Elev.	506.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	10.5
Rock Auger Length (FT)	23.5
Rock Socket Length	5
Construc. Shaft Length	31.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
34	
	
Ave. Shaft Bottom Elev.:	34
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
9		Brown silty CLAY.	
10.5	530	SOIL AUGER REFUSAL @ 10.5'.	
13		Rock Fragment and silty clay.	
16		Rock Fragment and silty clay.	
18		ROck Fragment and silty clay.	
20		Rock Fragment and silty clay.	
22		Rock Fragment and silty clay.	
24		Rock Fragment and silty clay.	
25.5		Hard Dark Gray Shale.	
27		Hard Dark Gray Shale.	
29		Hard Gray Limestone.	
32		Hard Gray Limestone.	
33	506.5	ROCK CORING TERMINATED AT 34'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/11/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ENCOUNTERED SIGNIFICANT GROUNDWATER.

DRILLED SHAFT LOG A-2

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A-2	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 6/9//2016		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	
FINISH: 6/9/2016			

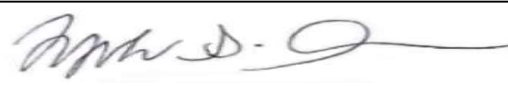
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	520.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528
Msd Avg. Shaft Bot Elev.	506.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	14.5
Rock Auger Length (FT)	19.5
Rock Socket Length	5
Construc. Shaft Length	31.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	x
Airlift	
Pump	x
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
34	
	34
Ave. Shaft Bottom Elev.: 34	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12.5	528	SOIL AUGER REFUSAL @ 12.5'.	
14		Fractured Limestone Fragment and silty clay.	
16		Fractured Limestone Fragment and silty clay.	
18		Fractured Limestone Fragment and silty clay.	
19.33		Hard Gray Limestone.	
21.33		Hard Gray Limestone.	
23.5		Wet Clay with rock fragments form 23.5 to 25.5 removed with a soil auger	
25.5		Wet Clay with rock fragments form 23.5 to 25.5 removed with a soil auger	
27		Hard Dark Gray Shale.	
29		Hard Gray Limestone.	
32		Hard Gray Limestone.	
34	506.5	ROCK CORING TERMINATED AT 34".	

INSPE

INSPECTOR SIGNATURE

DATE
6/11/2016

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ENCOUNTERED SIGNIFICANT GROUNDWATER.

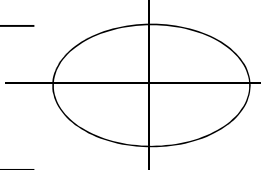
DRILLED SHAFT LOG A-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A-3	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 6/1//2016	FINISH: 6/2/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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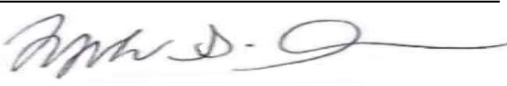
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528.5
Msd Avg. Shaft Bot Elev.	513.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12
Rock Auger Length (FT)	15
Rock Socket Length	5
Construc. Shaft Length	24.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
27	27
	
Ave. Shaft Bottom Elev.:	27
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length: 27	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12	528.5	SOIL AUGER REFUSAL @ 12.0'.	
14		Gray Limestone	
16		Gray Limestone	
18		Gray Limestone	
19		Highly decomposed shale exhibiting a soil structure of brown silty clay	
22		Highly decomposed shale exhibiting a soil structure of brown silty clay	
23	517.5	Hard gray limestone	
26		Hard gray limestone	
27	513.5	ROCK CORING TERMINATED AT 27.0'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/1/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. TEMPORARY STEEL CASING WAS USED TO PREVENT DRILLED SHAFT WALL CAVE-IN. STEEL CASING WAS WITHDRAWN AS CONCRETE WAS PLACED. INITIAL ROCK ENCOUNTERED WAS NOT SUFFICIENT FOR SUPPORT BEFORE TRANSITIONING INTO A CLAY LAYER. EXTENDED SHAFT TO REACH GOOD BEARING SURFACE.



Akins Consulting Services LLP
1400 South 3rd Street
St. Louis, MO 63104
(314) 499-4227

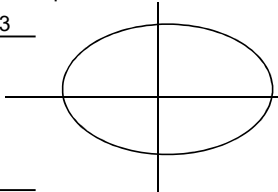
DRILLED SHAFT LOG A-4

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. A-4	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugbogada	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 6/29/2016		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	
FINISH: 6/29/2016			

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	537.75
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	525.25
Msd Avg. Shaft Bot Elev.	519.42

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12.5
Rock Auger Length(FT)	5.83
Rock Socket Length (FT)	5'
Construc. Shaft Length	18.33

DRILLING SLURRY	
Slurry Type & Manufacturer : N/A	
Slurry Meets Specifications? Y N	
CLEANOUT METHOD	
Bucket ☒	Airlift ☐ Pump ☒
Other: _____	
BOTTOM INSPECTION	
Visual	Tape/Probe ☒
Record 2 depths to the bottom of finished shaft:	
18.33	
	
	18.33
Ave. Shaft Bottom Elev.: 18.33	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
3		Brown silty CLAY.	
5		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
13		Brown silty CLAY.	
12.5	525.25	SOIL AUGER REFUSAL @ 12.5'.	
14		Hard Gray Limestone.	
16		Hard Gray Limestone.	
18		Hard Gray Limestone.	
18.33	519	ROCK CORING TERMINATED @ 18.33'.	

INSPECTOR SIGNATURE


DATE
6/30/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. INSTALLED AND PROBED 5' TEST HOLE TO VERIFY ROCK CONTINUITY.

DRILLED SHAFT LOG B.3-1.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. B.3-1.6	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 6/8//2016		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	
FINISH: 6/8/2016			

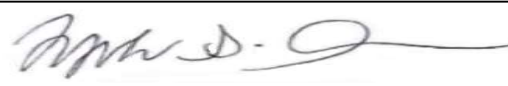
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529.5
Msd Avg. Shaft Bot Elev.	510

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	11
Rock Auger Length (FT)	19.5
Rock Socket Length	10
Construc. Shaft Length	27.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
30.5	
	30.5
Ave. Shaft Bottom Elev.: 30.5	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
11	529.5	SOIL AUGER REFUSAL @ 11.0'.	
14		Limestone Rock Frgaments and brown silty CLAY.	
16		Limestone Rock Frgaments and brown silty CLAY.	
18		Limestone Rock Frgaments and brown silty CLAY.	
20		Dark Gray Shale with a thin coal layer @ 20.5'.	
22		Dark Gray Shale.	
24		Dark Gary Shale.	
26		Dark Gray Shale.	
28		Dark Gray Shale.	
30.5	510	ROCK CORING TERMINATED AT 30.5'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/11/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ENCOUNTERED HARD SHALE AT APPROXIMATELY 20' TO TERMINATIO DEPTH OF 30.5' ON LIMESTONE.

DRILLED SHAFT LOG B.3-2.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. B.3-2.6	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 6/20/2016		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	
FINISH: 6/20/2016			

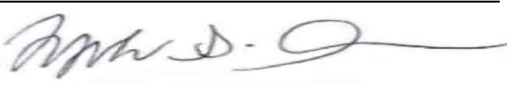
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	523.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	530.5
Msd Avg. Shaft Bot Elev.	513.5

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	10
Rock Auger Length (FT)	17
Rock Socket Length (FT)	6'
Construc. Shaft Length	24.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	x
Airlift	
Pump	x
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
27	
	27
Ave. Shaft Bottom Elev.: 27	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10	530.5	SOIL AUGER REFUSAL @ 10.5'.	
12		Rock Fragments and Clay.	
14		Rock Fragments and Clay.	
16		Rock Fragments and Clay.	
18	522.5	Highly Weathered Brown Limestone.	
20		Highly Weathered Brown Limestone	
21	519.5	Hard Gray Limestone.	
22		Hard Gray Limestone.	
24		Hard Gray Limestone.	
26		Hard Gray Limestone.	
27	513.5	ROCK CORING TERMINATED AT 27' ON LIMESTONE'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/21/2016

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. INSTALLED 6' TEST HOLE. ROCK CONTINUITY VERIFIED BY DOWN-HOLE INSPECTION. CONCRETE PLACED ON 6/21/2016. CONCRETE TESTING BY CDG.

DRILLED SHAFT LOG B.3-2

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. B.3-2	PLAN SHAFT DIAMETER 42"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 48"
		DATE	

DATE/TIME EXCAVATED START: 6/9//2016	FINISH: 6/9/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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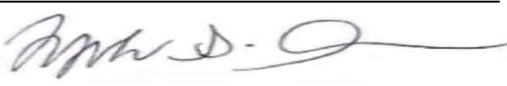
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529.9
Msd Avg. Shaft Bot Elev.	512.5

DIMENSIONS	
Soil Auger Dia. (IN)	42
Soil Shaft Length (FT)	10.6
Rock Auger Length (FT)	17.4
Rock Socket Length	7
Construc. Shaft Length	25.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	x
Airlift	
Pump	x
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
28	
	28
Ave. Shaft Bottom Elev.: 28	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
9		Brown silty CLAY.	
10.6		SOIL AUGER REFUSAL @ 10.6'.	
12		Cored Rock Fragment and clay	
14		Rock Fragment and Clay	
16		Rock Fragment and Clay	
18		Rock Fragment and Clay	
19		Hard Limestone Interbedded With Dark Gray Shale.	
22		Hard Limestone Interbedded With Dark Gray Shale.	
24		Hard Limestone Interbedded With Dark Gray Shale.	
25		Hard Limestone Interbedded With Dark Gray Shale.	
26		Hard Limestone Interbedded With Dark Gray Shale.	
28	512.5	ROCK CORING TERMINATED AT 28' ON LIMESTONE'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/11/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ENCOUNTERED HARD SHALE FROM 19' TO TERMINATION DEPTH OF 27.5, ON LIMESTONE. A TEST HOLE WAS DRILLED. ROCK CONTINUITY VERIFIED BY AUDIO.

DRILLED SHAFT LOG B.3-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. B.3-3	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 6/20//2016	FINISH: 6/21/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	--------------------------	---

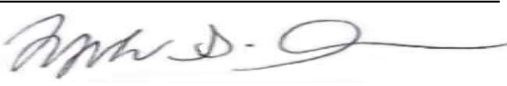
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	523.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	527
Msd Avg. Shaft Bot Elev.	508.5

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	13.5
Rock Auger Length (FT)	18.5
Rock Socket Length (FT)	6'
Construc. Shaft Length	29.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
32	
	32
Ave. Shaft Bottom Elev.: 32	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
13.5	527	SOIL AUGER REFUSAL @ 13.5'.	
15.5		Highly Weathered Brown Limestone.	
17		Highly Weathered Brown Limestone.	
19		Brown silty CLAY and Rock Fragments.	
21		Brown silty CLAY and Rock Fragments.	
23		Brown silty CLAY and Rock Fragments.	
25	515.5	Hard Gray Limestone.	
27		Hard Gray Limestone.	
29	511.5	Hard Gray Limestone.	
31		Hard Gray Limestone.	
32		ROCK CORING TERMINATED AT 32' ON LIMESTONE'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/23/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. CONCRETE SCHEDULED FOR 6/22/2016.



Akins Consulting Services LLP
1400 South 3rd Street
St. Louis, MO 63104
(314) 499-4227

DRILLED SHAFT LOG B.3-4

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. B.3-4	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 6/23/2016	FINISH: 6/24/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
---	--------------------------	---

ELEVATIONS	
Reference Elev.	_____
Grd. Surface Elev.	545
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	531.5
Msd Avg. Shaft Bot Elev.	525.25

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	13.5
Rock Auger Length(FT)	6.25
Rock Socket Length (FT)	5'
Construc. Shaft Length	12.5

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	_____
Pump	X
Other:	_____
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
19.75	_____
_____	19.75
Ave. Shaft Bottom Elev.: 19.75	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
3		Concrete from 3-5 removed with a core barrel.	
5		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
13		Brown silty CLAY.	
13.5	531.5	SOIL AUGER REFUSAL @ 13.5'.	
14		Hard Gray Limestone.	
16		Hard Gray Limestone.	
18		Hard Gray Limestone.	
19.75	525	ROCK CORING TERMINATED @ 19.75'.	

INSPECTOR SIGNATURE

DATE
6/24/2016

INSPECTOR SIGNATURE

DATE

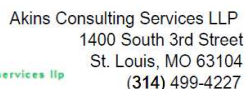
INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. INSTALLED AND PROBED 5' TEST HOLE TO VERIFY ROCK CONTINUITY.



DRILLED SHAFT LOG B.3-6



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB	LOCATION	SHAFT NO. B.3-7		PLAN SHAFT DIAMETER 30"	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA		ACTUAL SHAFT DIAMETER 30"	DATE

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	522.5
Water Table Elev.	
Top Shaft Elev.	519.75
Msd Top Rock Elev.	518.25
Msd Avg. Shaft Bot Elev.	512.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	4.25
Rock Auger Length (FT)	5.75
Rock Socket Length	5'
Construc. Shaft Length	7.25

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket ☒ _____ Airlift _____ Pump ☒ _____

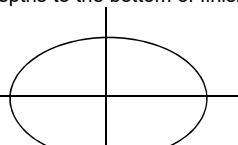
Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe ☒ _____

Record 2 depths to the bottom of finished shaft:

10 _____



_____ 10 _____

Ave. Shaft Bottom Elev.: _____ 10 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/28/2016

DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

DRILLED SHAFT LOG B-4.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. B-4.6	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 6/27/2016	FINISH: 6/28/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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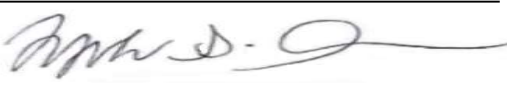
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	523.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	517
Msd Avg. Shaft Bot Elev.	509.5

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	23.5
Rock Auger Length (FT)	7.5
Rock Socket Length	6'
Construc. Shaft Length	28.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	x
Airlift	
Pump	x
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
31	
	31
Ave. Shaft Bottom Elev.: 31	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
14		Brown silty CLAY.	
16		Brown silty CLAY.	
18		Brown silty CLAY.	
20		Brown silty CLAY.	
22		Brown silty CLAY.	
23.5	517	SOIL AUGER REFUSAL @ 23.5'.	
24		Hrad Gary Limestone.	
26	514.5	Hrad Gary Limestone.	
28		Hrad Gary Limestone.	
31		ROCK CORING TERMINATED AT 31.0'.	

INSPE

INSPECTOR SIGNATURE

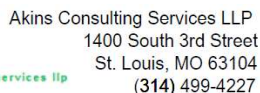
DATE
6/30/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC		
STRUCTURE ISB	LOCATION	SHAFT NO. B-7	PLAN SHAFT DIAMETER 30	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30	DATE

DATE/TIME EXCAVATED		TYPE OF CONSTRUCTION
START: 6/7/2016	FINISH: 6/8/2016	☒ DRY ☐ WET

Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529.5
Msd Avg. Shaft Bot Elev.	521.75

Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	11
Rock Auger Length(FT)	6.75
Rock Socket Length	5
Construc. Shaft Length	16

Slurry Type & Manufacturer :	N/A
------------------------------	-----

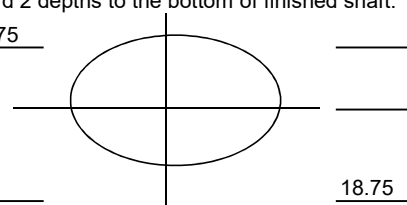
Slurry Meets Specifications?	Y	N
------------------------------	---	---

Bucket x Airlift Pump x
Other:

Visual	Tape/Probe	X
--------	------------	---

Record 2 depths to the bottom of finished shaft:

18.75



Ave. Shaft Bottom Elev.: 18.75

Meet Cleanout Specification?	Y: X	N
------------------------------	------	---

Meet Alignment Specifications?	Y: X	N
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100		

<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>N/A</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

INSPECTOR SIGNATURE	DATE
	6/8/2016
INSPECTOR SIGNATURE	DATE
INSPECTOR SIGNATURE	DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



Akins Consulting Services LLP
1400 South 3rd Street
St. Louis, MO 63104
(314) 499-4227

DRILLED SHAFT LOG B-8

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. B-8	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 36"

DATE/TIME EXCAVATED START: 6/14/2016		DATE/TIME EXCAVATED FINISH: 6/15/2016	
TYPE OF CONSTRUCTION ☒ DRY		TYPE OF CONSTRUCTION ☐ WET	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529.5
Msd Avg. Shaft Bot Elev.	522.5

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	11
Rock Auger Length(FT)	7
Rock Socket Length (FT)	6'
Construc. Shaft Length	15.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
18	18
Ave. Shaft Bottom Elev.:	18
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
11	529.5	SOIL AUGER REFUSAL @ 11.00'.	
13		Hard Gray Limestone.	
15		Hard Gray Limestone.	
17		Hard Gray Limestone.	
18	522.5	ROCK CORING TERMINATED @ 18.0'.	

INSPECTOR SIGNATURE

DATE
6/16/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

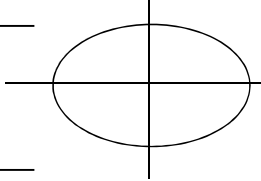
DRILLED SHAFT LOG C.3-1.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. C.3-1.6	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugboaga	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 7/19/2016	FINISH: 7/20/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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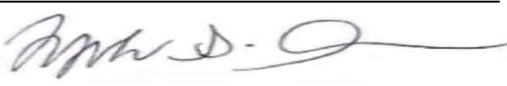
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	520.5
Msd Avg. Shaft Bot Elev.	514.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	20
Rock Auger Length (FT)	6
Rock Socket Length	6'
Construc. Shaft Length	23.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
26	
	
Ave. Shaft Bottom Elev.:	26
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
9		Brown silty CLAY.	
10.6		Brown silty CLAY.	
13		Brown silty CLAY.	
15		Brown silty CLAY.	
17		Brown silty CLAY.	
19		Brown silty CLAY.	
20	521	SOIL AUGER REFUSAL @ 20'.	
22		Hard Dark Gray Limestone.	
24		Hard Dark Gray Limestone.	
25		Hard Dark Gray Limestone.	
26		Hard Dark Gray Limestone.	
26	514.5	ROCK CORING TERMINATED AT 26'.	

INSPE

INSPECTOR SIGNATURE

DATE
7/20/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

DRILLED SHAFT LOG C.3-2

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. C.3-2	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 7/22/2016	FINISH: 7/25/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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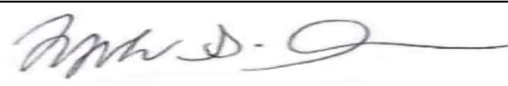
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528.5
Msd Avg. Shaft Bot Elev.	515.9

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	12
Rock Auger Length (FT)	12.6
Rock Socket Length	6
Construc. Shaft Length	21.85

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
24.6	
	24.6
Ave. Shaft Bottom Elev.: 24.6	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12	528.5	Refusal at 12.0'	
14		Clay with Rock fragment.	
18.5		Clay with Rock fragment.	
19		HARD GRAY LIMESTONE	
20		HARD GRAY LIMESTONE	
22		HARD GRAY LIMESTONE	
23		HARD GRAY LIMESTONE	
24.6	515.9	ROCK CORING TERMINATED @ 24.6	

INSPE

INSPECTOR SIGNATURE

DATE
7/26/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

DRILLED SHAFT LOG C.3-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. C.3-3	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 7/25/2016	FINISH: 7/26/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
---	--------------------------	---

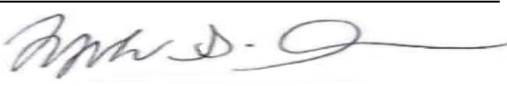
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	
Top Shaft Elev.	537.75
Msd Top Rock Elev.	527.5
Msd Avg. Shaft Bot Elev.	519

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	13
Rock Auger Length (FT)	8.5
Rock Socket Length	6'
Construc. Shaft Length	18.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
21.5	
	21.5
Ave. Shaft Bottom Elev.: 21.5	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
13	527.5	Refusal @13	
16		Clay with Rock fragment.	
18		HARD GRAY LIMESTONE	
20		HARD GRAY LIMESTONE	
20		HARD GRAY LIMESTONE	
21		HARD GRAY LIMESTONE	
21.6	519	ROCK CORING TERMINATED @ 21.6	

INSPE

INSPECTOR SIGNATURE

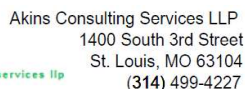
DATE
7/26/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. TEST HOLE DRILLED AND INSPECTED.
NOTE THE ORIGINAL DIAMETER OF SHAFT WAS EXTENDED FROM 36" TO 42" WHICH EXTENDED FROM 0' TO 9'.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB	LOCATION	SHAFT NO. C.3-5		PLAN SHAFT DIAMETER 30"	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA		ACTUAL SHAFT DIAMETER 30"	DATE

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	526.25
Water Table Elev.	
Top Shaft Elev.	523.75
Msd Top Rock Elev.	522.75
Msd Avg. Shaft Bot Elev.	516.25

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	3.5
Rock Auger Length (FT)	6.5
Rock Socket Length	5'
Construc. Shaft Length	7.5

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket ☒ _____ Airlift _____ Pump ☒ _____

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe ☒ _____

Record 2 depths to the bottom of finished shaft:

10 _____

_____ 10 _____

Ave. Shaft Bottom Elev.: _____ 10 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

8/3/2016

DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT ON 8/3/2016 DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

DRILLED SHAFT LOG C-1.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. C-1.6	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA	ACTUAL SHAFT DIAMETER 36"
		DATE	

DATE/TIME EXCAVATED START: 7/21/2016	FINISH: 7/21/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------	--

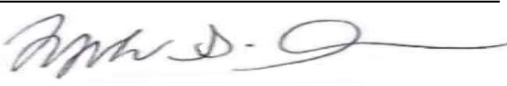
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	519
Msd Avg. Shaft Bot Elev.	510.5

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	21.5
Rock Auger Length (FT)	6
Rock Socket Length	6
Construc. Shaft Length	27.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
30	
	30
Ave. Shaft Bottom Elev.: 30	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
14		Brown silty CLAY.	
16		Clay with Rock fragment.	
18		Clay with Rock fragment.	
20		Clay with Rock fragment.	
21.5		REFUSAL @21.5	
22		HARD GRAY LIMESTONE	
23		HARD GRAY LIMESTONE	
24		HARD GRAY LIMESTONE	
26		HARD GRAY LIMESTONE	
28		HARD GRAY LIMESTONE	
30	510.5	ROCK CORING TERMINATED @ 30	

INSPE

INSPECTOR SIGNATURE

DATE
7/22/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

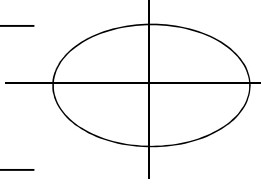
DRILLED SHAFT LOG C-2

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. C-2	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA	ACTUAL SHAFT DIAMETER 30"
		DATE	

DATE/TIME EXCAVATED START: 7/21/2016	FINISH: 7/21/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------	--

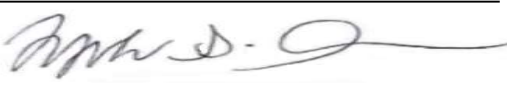
ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	521.5
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528.17
Msd Avg. Shaft Bot Elev.	517.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12.33
Rock Auger Length (FT)	5
Rock Socket Length	5
Construc. Shaft Length	20.25

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
23	
	
	23
Ave. Shaft Bottom Elev.:	23
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12.33	528.17	Refusal @12.33	
14		Clay with Rock fragment.	
16		Clay with Rock fragment.	
18		HARD GRAY LIMESTONE	
20		HARD GRAY LIMESTONE	
20		HARD GRAY LIMESTONE	
22		HARD GRAY LIMESTONE	
23	517.5	ROCK CORING TERMINATED @ 23	

INSPE

INSPECTOR SIGNATURE

DATE
7/22/2016
DATE

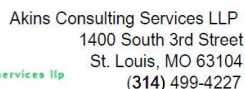
INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



DRILLED SHAFT LOG C-6



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION		SHAFT NO. C-7	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH OSUMA P.E		PLAN SHAFT DIAMETER 36"	
				ACTUAL SHAFT DIAMETER 36"	
				DATE	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	522.5
Water Table Elev.	
Top Shaft Elev.	519.75
Msd Top Rock Elev.	518.4
Msd Avg. Shaft Bot Elev.	512.25

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	4.1
Rock Auger Length (FT)	6.15
Rock Socket Length	6'
Construc. Shaft Length	7.5

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket ☒ _____ Airlift _____ Pump ☒ _____

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe ☒ _____

Record 2 depths to the bottom of finished shaft:

10.25 _____

_____ 10.25

Ave. Shaft Bottom Elev.: 10.25

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/29/2016

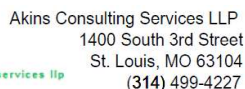
DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO
MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

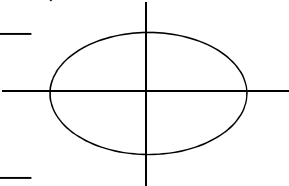


PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION		SHAFT NO. D-5	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugobodaqa		PLAN SHAFT DIAMETER 36"	
				ACTUAL SHAFT DIAMETER 36"	
				DATE	

START: 7/13/2016	DATE/TIME EXCAVATED FINISH: 7/14/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
------------------	--	--

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	513.5

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	10
Rock Socket Length	6
Construc. Shaft Length	10.25

DRILLING SLURRY	
Slurry Type and Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket <u> X </u> Airlift <u> </u> Pump <u> </u>	X
Other: <u> </u>	
BOTTOM INSPECTION	
Visual <u> </u> Tape/Probe <u> </u>	X
Record 2 depths to the bottom of finished shaft:	
<u> 10 </u>	<u> </u>
	
<u> </u>	<u> </u>
<u> </u>	<u> </u>
<u> </u>	<u> 10 </u>
Ave. Shaft Bottom Elev.: <u> </u> 10	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

DATE

INSPECTOR SIGNATURE _____

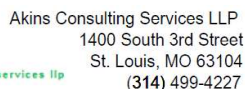
DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. CLAY SEAM ENCOUNTERED AT ABOUT 2' THEN EXTENDS FOR 2.5 FT. A TEST HOLE WAS DRILLED TO VERIFY ROCK CONTINUITY.



DRILLED SHAFT LOG D-6



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. D-8	PLAN SHAFT DIAMETER 42"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugobodaqa	ACTUAL SHAFT DIAMETER 42" DATE

DATE/TIME EXCAVATED		TYPE OF CONSTRUCTION
START: 7/16/2016	FINISH: 7/18/2016	☒ DRY ☐ WET

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	515.5

DIMENSIONS	
Soil Auger Dia. (IN)	42
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	8
Rock Socket Length	7
Construc. Shaft Length	8.25

Slurry Type and Manufacturer : _____ N/A

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket X Airlift _____ Pump X

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe X

Record 2 depths to the bottom of finished shaft:

8 _____

_____ 8 _____

Ave. Shaft Bottom Elev.: _____ 8

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

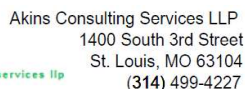
DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO
MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



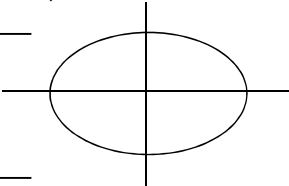
DRILLED SHAFT LOG E.5-8

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION		PLAN SHAFT DIAMETER	
		SHAFT NO. E.5-8		36"	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA		ACTUAL SHAFT DIAMETER 36"	DATE

DATE/TIME EXCAVATED		TYPE OF CONSTRUCTION
START: 7/15/2016	FINISH: 7/16/2016	☒ DRY ☐ WET

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	517.25

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	6.25
Rock Socket Length	6
Construc. Shaft Length	6.5

DRILLING SLURRY	
Slurry Type and Manufacturer :	N/A
Slurry Meets Specifications? Y N	
CLEANOUT METHOD	
Bucket	X
Airlift	_____
Pump	X
Other:	_____
BOTTOM INSPECTION	
Visual	_____
Tape/Probe	X
Record 2 depths to the bottom of finished shaft:	
6.25	_____
	
_____	6.25
Ave. Shaft Bottom Elev.:	
6.25	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

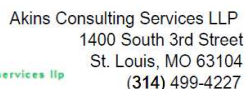
DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



DRILLED SHAFT LOG E-5

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB	LOCATION	SHAFT NO. E-5		PLAN SHAFT DIAMETER 42"	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA		ACTUAL SHAFT DIAMETER 42"	DATE

START: 7/18/2016	DATE/TIME EXCAVATED FINISH: 7/18/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
------------------	--	--

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	516

DIMENSIONS	
Soil Auger Dia. (IN)	42
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	7
Rock Socket Length	7
Construc. Shaft Length	7.75

Slurry Type and Manufacturer : _____ N/A

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket **x** Airlift _____ Pump **x**

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe **X** _____

Record 2 depths to the bottom of finished shaft:

7.5 _____

7.5 _____

Ave. Shaft Bottom Elev.: _____ 7.5

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

DATE

INSPECTOR SIGNATURE _____

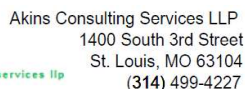
DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. TEST HOLE DRILLED TO VERIFY ROCK CONTINUITY. DOWN HOLE INSPECTION WAS CONDUCTED WITH A STEEL PROBE ROD.



DRILLED SHAFT LOG E-6



DRILLED SHAFT LOG E-7

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC		
STRUCTURE ISB	LOCATION	SHAFT NO. E-5	PLAN SHAFT DIAMETER 36"	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA	ACTUAL SHAFT DIAMETER 36"	DATE

START: 7/18/2016	DATE/TIME EXCAVATED FINISH: 7/18/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
------------------	--	--

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	516.92

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	6.58
Rock Socket Length	6
Construc. Shaft Length	6.83

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket **x** _____ Airlift _____ Pump **x** _____

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe **X** _____

Record 2 depths to the bottom of finished shaft:

6.58 _____

_____ 6.58 _____

Ave. Shaft Bottom Elev.: _____ 6.58 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

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INSPE 

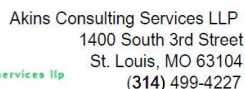
INSPECTOR SIGNATURE

DATE
7/20/2016

INSPECTOR SIGNATURE _____

INSPECTOR SIGNATURE _____

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB	LOCATION	SHAFT NO. E-8		PLAN SHAFT DIAMETER 36"	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA		ACTUAL SHAFT DIAMETER 36"	DATE

START: 7/13/2016	DATE/TIME EXCAVATED FINISH: 7/13/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
------------------	--	--

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	516.58

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	6.92
Rock Socket Length	6
Construc. Shaft Length	7.17

DRILLING SLURRY

Slurry Type and Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket X Airlift _____ Pump X

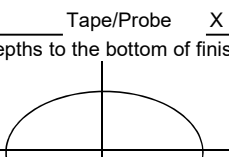
Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe X

Record 2 depths to the bottom of finished shaft:

6.92 _____



_____ 6.92 _____

Ave. Shaft Bottom Elev.: _____ 6.92 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

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INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

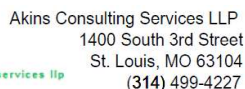
DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO
MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ROCK CONTINUITY VERIFIED WITH A TEST HOLE.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION		SHAFT NO. ELEVATOR SHAFT 1	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH OSUMA P.E		PLAN SHAFT DIAMETER 30"	
				ACTUAL SHAFT DIAMETER 30"	
				DATE	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	522.5
Water Table Elev.	
Top Shaft Elev.	519.75
Msd Top Rock Elev.	518.17
Msd Avg. Shaft Bot Elev.	513.17

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	4.33
Rock Auger Length (FT)	5
Rock Socket Length	5'
Construc. Shaft Length	6.58

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket **X** _____ Airlift _____ Pump **X** _____

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe **X** _____

Record 2 depths to the bottom of finished shaft:

9.33 _____

_____ 9.33 _____

Ave. Shaft Bottom Elev.: _____ 9.33 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/29/2016

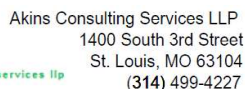
DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO
MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION			
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		SHAFT NO. ELEVATOR PIER 2		PLAN SHAFT DIAMETER 30"	
		INSPECTED BY JOSEPH OSUMA P.E		ACTUAL SHAFT DIAMETER 30"	
				DATE	

DATE/TIME EXCAVATED		TYPE OF CONSTRUCTION
START: 7/29/2016	FINISH: 7/29/2016	☒ DRY ☐ WET

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	522.5
Water Table Elev.	
Top Shaft Elev.	519.75
Msd Top Rock Elev.	518.5
Msd Avg. Shaft Bot Elev.	513.42

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	4
Rock Auger Length (FT)	5.08
Rock Socket Length	5'
Construc. Shaft Length	6.33

DRILLING SLURRY

Slurry Type and Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket X Airlift _____ Pump _____ X

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe X

Record 2 depths to the bottom of finished shaft:

9.08 _____

_____ 9.08 _____

Ave. Shaft Bottom Elev.: _____ 9.08 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

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INSPE 

INSPECTOR SIGNATURE

DATE

7/29/2016

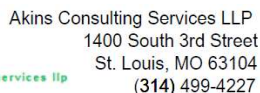
DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES: _____

 LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO
 MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC		
STRUCTURE ISB	LOCATION	SHAFT NO. F.4-7.3	PLAN SHAFT DIAMETER 30"	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30"	DATE

DATE/TIME EXCAVATED		TYPE OF CONSTRUCTION
START: 6/3/2016	FINISH: 6/6/2016	☒ DRY ☐ WET

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528.5
Msd Avg. Shaft Bot Elev.	522.75

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12
Rock Auger Length (FT)	5.75
Rock Socket Length	5
Construc. Shaft Length	15

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket X Airlift _____ Pump X

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe X

Record 2 depths to the bottom of finished shaft:

17.75 _____

_____ 17.75

Ave. Shaft Bottom Elev.: _____ 17.75 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: <u>FULL LENG</u>	Length: _____	Length: _____

[illegible]

INSPECTOR SIGNATURE

[Handwritten Signature]

DATE
6/6/2016

INSPECTOR SIGNATURE _____

DATE _____

INSPECTOR SIGNATURE _____

DATE _____

NOTES: LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. DRILLED A 5 FEET TEST HOLE TO VERIFY ROCK CONTINUITY.



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DRILLED SHAFT LOG F.5-5

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. F.5-5	PLAN SHAFT DIAMETER 36
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 36
		DATE	

DATE/TIME EXCAVATED START: 6/7/2016		FINISH: 6/7/2016	
		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529.5
Msd Avg. Shaft Bot Elev.	521.75

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	11
Rock Auger Length(FT)	7.75
Rock Socket Length	6
Construc. Shaft Length	16

DRILLING SLURRY	
Slurry Type & Manufacturer : N/A	
Slurry Meets Specifications? Y N	
CLEANOUT METHOD	
Bucket X	Airlift Pump X
Other: 	
BOTTOM INSPECTION	
Visual 	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
18.75	18.75
Ave. Shaft Bottom Elev.: 18.75	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type 	Type
OD (in.) 	OD (in.) 	OD (in.)
Thickness 	Thickness 	Thickness
Top Elev. 	Top Elev. 	Top Elev.
Length: 	Length: 	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
11	529.5	SOIL AUGER REFUSAL @ 11.00'.	
13		Gray limestone interbedded with thin shale.	
15		Gray limestone interbedded with thin shale.	
17		Gray limestone.	
18.75	521.75	ROCK CORING TERMINATED @ 18.75'.	

INSPECTOR SIGNATURE

DATE
6/8/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



DRILLED SHAFT LOG F.5-6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. F.5-6	PLAN SHAFT DIAMETER 36
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 36
		DATE	

DATE/TIME EXCAVATED START: 6/7/2016		FINISH: 6/7/2016	
		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528
Msd Avg. Shaft Bot Elev.	518.75

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	12.5
Rock Auger Length(FT)	9.25
Rock Socket Length	6
Construc. Shaft Length	19

DRILLING SLURRY	
Slurry Type & Manufacturer : N/A	
Slurry Meets Specifications? Y N	
CLEANOUT METHOD	
Bucket X	Airlift X
Other: Pump	
BOTTOM INSPECTION	
Visual X	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
21.75	21.75
Ave. Shaft Bottom Elev.: 21.75	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

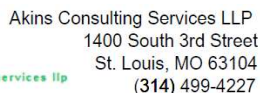
DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12.5	528	SOIL AUGER REFUSAL @ 12.5'.	
14		Gray limestone.	
16		Gray limestone interbedded with thin shale.	
18		Gray limestone.	
21.75	518.75	ROCK CORING TERMINATED @ 21.75'.	

INSPECTOR SIGNATURE  DATE **6/8/2016**

INSPECTOR SIGNATURE _____ DATE _____

INSPECTOR SIGNATURE _____ DATE _____

NOTES: LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

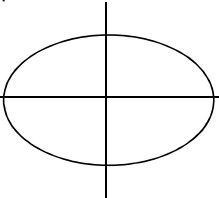


PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. F.5-7	PLAN SHAFT DIAMETER 30
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30
			DATE

DATE/TIME EXCAVATED START: 6/6/2016 FINISH: 6/6/2016		TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	--	---

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528.5
Msd Avg. Shaft Bot Elev.	522

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12
Rock Auger Length (FT)	6.5
Rock Socket Length	5
Construc. Shaft Length	15.75

DRILLING SLURRY			
Slurry Type & Manufacturer :		N/A	
Slurry Meets Specifications?		Y	N
CLEANOUT METHOD			
Bucket	X	Airlift	
		Pump	X
Other: _____			
BOTTOM INSPECTION			
Visual	_____	Tape/Probe	X
Record 2 depths to the bottom of finished shaft:			
18.5			_____
_____			_____
_____			_____
_____			18.5
Ave. Shaft Bottom Elev.:		18.5	
Meet Cleanout Specification?		Y: X	N
Meet Alignment Specifications?		Y: X	N

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>N/A</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

DEPTH	ELEVATION			SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2				Brown silty CLAY.	
4				Brown silty CLAY.	
6				Brown silty CLAY.	
7				Brown silty CLAY.	
8				Brown silty CLAY.	
10				Brown silty CLAY.	
12	528.5			SOIL AUGER REFUSAL @ 12.0'.	
14				Gray limestone	
16				Gray limestone interbedded with thin shale layer from 14.5 to 16.	
17				Gray limestone	
18.5	522			ROCK CORING TERMINATED @ 18.5'.	

INSPECTOR SIGNATURE

DATE _____

6/6/2016

INSPECTOR SIGNATURE

DATE _____

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO
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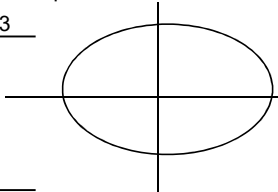
DRILLED SHAFT LOG F-5

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. F-5	PLAN SHAFT DIAMETER 30
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30
		DATE	

DATE/TIME EXCAVATED START: 6/7/2016		FINISH: 6/8/2016	
		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529
Msd Avg. Shaft Bot Elev.	521.17

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	11.5
Rock Auger Length(FT)	7.83
Rock Socket Length	5
Construc. Shaft Length	16.58

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
19.33	
	
	19.33
Ave. Shaft Bottom Elev.:	19.33
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
11.5	529	SOIL AUGER REFUSAL @ 11.00'.	
13		Gray limestone interbedded with thin shale.	
15		Gray limestone interbedded with thin shale.	
17		Gray limestone.	
19.33	521.17	ROCK CORING TERMINATED @ 19.33'.	

INSPECTOR SIGNATURE


DATE
6/8/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



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DRILLED SHAFT LOG F-6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. F-6	PLAN SHAFT DIAMETER 30
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30
		DATE	

DATE/TIME EXCAVATED START: 6/7/2016		FINISH: 6/7/2016	
		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529.5
Msd Avg. Shaft Bot Elev.	522.75

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	11
Rock Auger Length(FT)	6.75
Rock Socket Length	5
Construc. Shaft Length	15

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
17.75	
	17.75
Ave. Shaft Bottom Elev.: 17.75	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
11	529.5	SOIL AUGER REFUSAL @ 11.00'.	
13		Gray limestone interbedded with thin shale.	
15		Gray limestone interbedded with thin shale.	
17		Gray limestone.	
17.75	522.75	ROCK CORING TERMINATED @ 17.75'.	

INSPECTOR SIGNATURE

DATE
6/8/2016

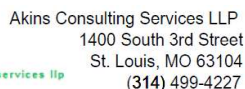
INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



DRILLED SHAFT LOG F-6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION		SHAFT NO. F-6	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY PETER UGBODAGA		PLAN SHAFT DIAMETER 30"	
				ACTUAL SHAFT DIAMETER 30"	
				DATE	

START: 7/16/2016	DATE/TIME EXCAVATED FINISH: 7/16/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
------------------	--	--

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	518.25

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	5.25
Rock Socket Length	5
Construc. Shaft Length	5.5

DRILLING SLURRY

Slurry Type and Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket X Airlift _____ Pump X

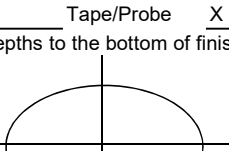
Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe X

Record 2 depths to the bottom of finished shaft:

5.25 _____



_____ 5.25 _____

Ave. Shaft Bottom Elev.: _____ 5.25 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



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DRILLED SHAFT LOG F-7

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. F-7	PLAN SHAFT DIAMETER 30
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30
		DATE	

DATE/TIME EXCAVATED START: 6/7/2016	FINISH: 6/7/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------------	---

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	530.25
Msd Avg. Shaft Bot Elev.	524.75

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	10.25
Rock Auger Length(FT)	5.5
Rock Socket Length	5
Construc. Shaft Length	13

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
15.75	
	15.75
Ave. Shaft Bottom Elev.: 15.75	
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
10.25	530.25	SOIL AUGER REFUSAL @ 10.00'.	
12		Gray limestone interbedded with thin shale.	
14		Gray limestone interbedded with thin shale.	
15		Gray limestone.	
15.75	524.75	ROCK CORING TERMINATED @ 15.75'.	

INSPECTOR SIGNATURE

DATE
6/8/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
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DRILLED SHAFT LOG F-8

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. F-8	PLAN SHAFT DIAMETER 36"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 36" DATE

DATE/TIME EXCAVATED START: 6/6/2016	FINISH: 6/6/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------------	---

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	529
Msd Avg. Shaft Bot Elev.	521.25

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	11.5
Rock Auger Length(FT)	7.75
Rock Socket Length	6
Construc. Shaft Length	16.5

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
19.25	
	19.25
Ave. Shaft Bottom Elev.:	19.25
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
13.5	529	SOIL AUGER REFUSAL @ 11.5'.	
14		Gray limestone	
16		Gray limestone interbedded with thin shale layer from 14' to 16.5'.	
18.5		Gray limestone	
19.25	521.25	ROCK CORING TERMINATED @ 19.25'.	

INSPECTOR SIGNATURE

DATE
6/6/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.

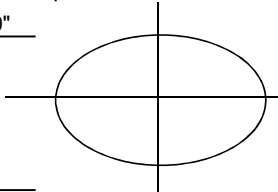
DRILLED SHAFT LOG V-4.6

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. V-4.6	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

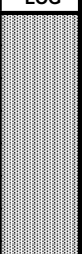
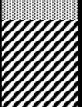
DATE/TIME EXCAVATED START: 5/24/2016	FINISH: 5/24/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
---	--------------------------	---

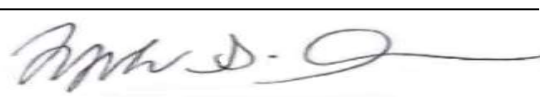
ELEVATIONS	
Reference Elev.	_____
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	536.25
Msd Top Rock Elev.	527.75
Msd Avg. Shaft Bot Elev.	521.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12.75
Rock Auger Length (FT)	6.25
Rock Socket Length	6.25
Construc. Shaft Length	14.75

DRILLING SLURRY	
Slurry Type & Manufacturer : N/A	
Slurry Meets Specifications? Y N	
CLEANOUT METHOD	
Bucket ☒	Airlift ☐ Pump ☒
Other: _____	
BOTTOM INSPECTION	
Visual	Tape/Probe ☒
Record 2 depths to the bottom of finished shaft:	
19' 0"	19' 0"
	
Ave. Shaft Bottom Elev.: 19	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type <u>N/A</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
12.75	527.75	SOIL AUGER REFUSAL @ 12.75'.	
16		Hard gray limestone	
18		Hard gray limestone	
19	521.5	ROCK CORING TERMINATED @ 19.0'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/1/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



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DRILLED SHAFT LOG W-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. W-3	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 5/24/2016	FINISH: 6/1/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
---	-------------------------	---

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	523
Top Shaft Elev.	536.25
Msd Top Rock Elev.	528
Msd Avg. Shaft Bot Elev.	503.75

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12.5
Rock Auger Length (FT)	24.25
Rock Socket Length	5
Construc. Shaft Length	32.5

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
36.75'	
	36.75'
Ave. Shaft Bottom Elev.:	36.75
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length: 32	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
12.5	528	SOIL AUGER REFUSAL @ 12.5'.	
16		Hard gray limestone from 12.5' to 15.5'	
22		Highly decomposed shale exhibiting a soil structure of brown silty clay	
26		Highly decomposed shale exhibiting a soil structure of brown silty clay	
28		Highly decomposed shale exhibiting a soil structure of brown silty clay	
31.75	508.75	Hard gray limestone	
34.25		Hard gray limestone	
36.75	503.75	ROCK CORING TERMINATED AT 36.75'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/1/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. TEMPORARY STEEL CASING WAS USED TO PREVENT DRILLED SHAFT WALL CAVE-IN. STEEL CASING WAS WITHDRAWN AS CONCRETE WAS PLACED.



DRILLED SHAFT LOG W-4.5

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. W-4.5	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 6/2/2016	FINISH: 6/3/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------------	---

ELEVATIONS	
Reference Elev.	_____
Grd. Surface Elev.	540.5
Water Table Elev.	518.5
Top Shaft Elev.	539
Msd Top Rock Elev.	526
Msd Avg. Shaft Bot Elev.	509

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	14.5
Rock Auger Length (FT)	17
Rock Socket Length	5
Construc. Shaft Length	30

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	_____
Pump	X
Other:	_____
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
31.5	_____
_____	31.5
Ave. Shaft Bottom Elev.:	31.5
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type TEMP	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: 30	Length: _____	Length: _____

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
14.5	526	SOIL AUGER REFUSAL @ 14.5	
16		Gray limestone	
20.5		Gray limestone	
22.5		Highly decomposed shale exhibiting a soil structure of brown silty clay with rock fragments	
24		Highly decomposed shale exhibiting a soil structure of brown silty clay with rock fragments	
26	514.5	Hard gray limestone	
28		Hard gray limestone	
31.5	509	ROCK CORING TERMINATED AT 31.5'.	

INSPE

INSPECTOR SIGNATURE

DATE
6/6/2016
DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. TEMPORARY STEEL CASING WAS USED TO PREVENT DRILLED SHAFT WALL CAVE-IN. STEEL CASING WAS WITHDRAWN AS CONCRETE WAS PLACED. ROCK INITIALLY ENCOUNTERED AT 14.5' TRANSITIONED INTO A HIGHLY DECOMPOSED SHALE LAYER AND BACK INTO LIMESTONE.



DRILLED SHAFT LOG X-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. X-3	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30"

DATE/TIME EXCAVATED START: 6/6/2016	FINISH: 6/6/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
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ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	536.25
Msd Top Rock Elev.	527
Msd Avg. Shaft Bot Elev.	520.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	13.5
Rock Auger Length(FT)	6.5
Rock Socket Length	5
Construc. Shaft Length	15.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket ☒ Airlift ☐ Pump ☒	
Other:	
BOTTOM INSPECTION	
Visual ☐ Tape/Probe ☒	
Record 2 depths to the bottom of finished shaft:	
20	20
Ave. Shaft Bottom Elev.:	20
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
13.5	527	SOIL AUGER REFUSAL @ 13.5'.	
14		Gray limestone	
16		Gray limestone	
18.5		Gray limestone	
19.5		Clay seam @ 18.5' to 19.5'	
20		Hard gray limestone from 19.5 feet to termination	
20	520.5	ROCK CORING TERMINATED @ 20.0'.	

INSPECTOR SIGNATURE

DATE
6/6/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ROCK INITIALLY ENCOUNTERED AT 13.5', HOWEVER, TRANSITIONED INTO SILTY CLAY LAYER @ 18.5'. EXTENDED SHAFT BOTTOM TO BEAR ON SUITABLE MATERIAL.



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DRILLED SHAFT LOG X-4.5

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. X-4.5	PLAN SHAFT DIAMETER 30
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30
		DATE	

DATE/TIME EXCAVATED START: 6/7/2016		FINISH: 6/7/2016	
		TYPE OF CONSTRUCTION ☒ DRY ☐ WET	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	536.25
Msd Top Rock Elev.	526.5
Msd Avg. Shaft Bot Elev.	519.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	14
Rock Auger Length(FT)	7
Rock Socket Length	5
Construc. Shaft Length	16.75

DRILLING SLURRY	
Slurry Type & Manufacturer : N/A	
Slurry Meets Specifications? Y N	
CLEANOUT METHOD	
Bucket X	Airlift Pump X
Other: 	
BOTTOM INSPECTION	
Visual Tape/Probe X	
Record 2 depths to the bottom of finished shaft:	
21	21
Ave. Shaft Bottom Elev.: 21	
Meet Cleanout Specification? Y: X N	
Meet Alignment Specifications? Y: X N	

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type 	Type
OD (in.) 	OD (in.) 	OD (in.)
Thickness 	Thickness 	Thickness
Top Elev. 	Top Elev. 	Top Elev.
Length: 	Length: 	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12.5	526.5	SOIL AUGER REFUSAL @ 14.0'.	
14		Gray limestone changed to brown silty clay at 14.3'	
16		Gray limestone interbedded with thin shale.	
18		Gray limestone.	
21	519.5	ROCK CORING TERMINATED @ 21.00'.	

INSPECTOR SIGNATURE

DATE
6/8/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



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DRILLED SHAFT LOG Y-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. Y-3	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 6/3/2016	FINISH: 6/3/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------------	---

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528
Msd Avg. Shaft Bot Elev.	518.67

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12.5
Rock Auger Length(FT)	9.33
Rock Socket Length	5
Construc. Shaft Length	19.08

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
21.83	
	21.83
Ave. Shaft Bottom Elev.:	21.83
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12.5	528	SOIL AUGER REFUSAL @ 12.5'.	
14		Gray limestone	
16		Gray limestone	
17.5		Gray limestone	
19		Clay seam @ 17.5' to 19.0'	
20		Hard gray limestone from 19 feet to termination	
21.83	518.67	ROCK CORING TERMINATED @ 21.83'.	

INSPECTOR SIGNATURE

Joseph S. Osuma

DATE

6/6/2016

INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. ROCK INITIALLY ENCOUNTERED AT 12.5', HOWEVER, TRANSITIONED INTO SILTY CLAY LAYER. EXTENDED SHAFT BOTTOM TO BEAR ON SUITABLE MATERIAL.



DRILLED SHAFT LOG Y-4.5

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. Y-4.5	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 6/6/2016	FINISH: 6/6/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------------	---

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	536.25
Msd Top Rock Elev.	528.5
Msd Avg. Shaft Bot Elev.	522.17

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12
Rock Auger Length(FT)	6.25
Rock Socket Length	5
Construc. Shaft Length	14.08

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	
Pump	X
Other:	
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
18.33	
	18.33
Ave. Shaft Bottom Elev.:	18.33
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type	Type
OD (in.)	OD (in.)	OD (in.)
Thickness	Thickness	Thickness
Top Elev.	Top Elev.	Top Elev.
Length:	Length:	Length:

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12	528.5	SOIL AUGER REFUSAL @ 12.0'.	
14		Gray limestone	
16		Gray limestone with 6 inch clay seam @ 15'.	
18		Gray limestone	
18.33	522.17	ROCK CORING TERMINATED @ 18.33'.	

INSPECTOR SIGNATURE

DATE
6/6/2016

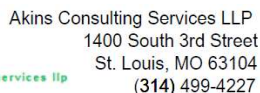
INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. 6-INCH CLAY SEAM @ 15'.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION		SHAFT NO. Z-4.4	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.		PLAN SHAFT DIAMETER 30"	
				ACTUAL SHAFT DIAMETER 30"	
				DATE	

DATE/TIME EXCAVATED START: 6/1/2016	FINISH: 6/1/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
--	-------------------------	---

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	537.75
Msd Top Rock Elev.	528.5
Msd Avg. Shaft Bot Elev.	523

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	12
Rock Auger Length (FT)	5.5
Rock Socket Length	5.5
Construc. Shaft Length	14.75

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket X Airlift _____ Pump X

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe X

Record 2 depths to the bottom of finished shaft:

17.5 _____

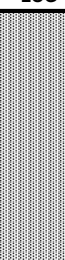
_____ 17.5

Ave. Shaft Bottom Elev.: _____ 17.5 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>N/A</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

DEPTH	ELEVATION			SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2				Brown silty CLAY.	
4				Brown silty CLAY.	
6				Brown silty CLAY.	
7				Brown silty CLAY.	
8				Brown silty CLAY.	
10				Brown silty CLAY.	
12				Brown silty CLAY.	
12.5	528.5			SOIL AUGER REFUSAL @ 12.5'.	
15				Hard gray limestone	
17				Hard gray limestone	
17.5	523			ROCK CORING TERMINATED @ 17.5'.	

INSPECTOR SIGNATURE

[Handwritten Signature]

DATE

6/2/2016

INSPECTOR SIGNATURE _____

DATE _____

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. A 5 FEET TEST HOLE WAS DRILLED AT THE BEARING SURFACE. THE TEST HOLE INDICATED ROCK CONTINUITY.



Akins Consulting Services LLP
1400 South 3rd Street
St. Louis, MO 63104
(314) 499-4227

DRILLED SHAFT LOG V-3

PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC	
STRUCTURE ISB	LOCATION	SHAFT NO. V-3	PLAN SHAFT DIAMETER 30"
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY JOSEPH S. OSUMA, P.E.	ACTUAL SHAFT DIAMETER 30" DATE

DATE/TIME EXCAVATED START: 5/24/2016	FINISH: 5/24/2016	TYPE OF CONSTRUCTION ☒ DRY ☐ WET
---	--------------------------	---

ELEVATIONS	
Reference Elev.	_____
Grd. Surface Elev.	540.5
Water Table Elev.	NA
Top Shaft Elev.	536.25
Msd Top Rock Elev.	527.5
Msd Avg. Shaft Bot Elev.	521.5

DIMENSIONS	
Soil Auger Dia. (IN)	30
Soil Shaft Length (FT)	13
Rock Auger Length(FT)	6
Rock Socket Length	6
Construc. Shaft Length	14.75

DRILLING SLURRY	
Slurry Type & Manufacturer :	N/A
Slurry Meets Specifications?	Y N
CLEANOUT METHOD	
Bucket	X
Airlift	_____
Pump	X
Other:	_____
BOTTOM INSPECTION	
Visual	Tape/Probe X
Record 2 depths to the bottom of finished shaft:	
19' 0"	_____
_____	19' 0"
Ave. Shaft Bottom Elev.:	19
Meet Cleanout Specification?	Y: X N
Meet Alignment Specifications?	Y: X N

CASING INFORMATION (if applicable)		
Casing (Temp / Perm)	Casing (Temp / Perm)	Casing (Temp / Perm)
Type N/A	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

DEPTH	ELEVATION	SOIL OR ROCK MATERIAL DESCRIPTION AND NOTES	LOG
2		Brown silty CLAY.	
4		Brown silty CLAY.	
6		Brown silty CLAY.	
7		Brown silty CLAY.	
8		Brown silty CLAY.	
10		Brown silty CLAY.	
12		Brown silty CLAY.	
14	527.5	SOIL AUGER REFUSAL @ 13.0'.	
16		Hard gray limestone	
18		Hard gray limestone	
19	521.5	ROCK CORING TERMINATED @ 19.0'.	

INSPECTOR SIGNATURE

DATE
6/2/2016

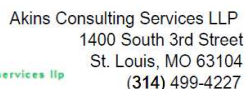
INSPECTOR SIGNATURE

DATE

INSPECTOR SIGNATURE

DATE

NOTES:
LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG.



PROJECT WEBSTER UNIVERSITY ISB PROJECT		CONTRACTOR PARIC			
STRUCTURE ISB		LOCATION		SHAFT NO. C-8	
DRILLED SHAFT CONTRACTOR DRILLING SERVICES		INSPECTED BY Peter Ugobodaqa		PLAN SHAFT DIAMETER 36"	
				ACTUAL SHAFT DIAMETER 36"	
				DATE	

ELEVATIONS	
Reference Elev.	
Grd. Surface Elev.	523.5
Water Table Elev.	0
Top Shaft Elev.	523.75
Msd Top Rock Elev.	523.5
Msd Avg. Shaft Bot Elev.	516.67

DIMENSIONS	
Soil Auger Dia. (IN)	36
Soil Shaft Length (FT)	0
Rock Auger Length (FT)	6
Rock Socket Length	6'
Construc. Shaft Length	7.08

DRILLING SLURRY

Slurry Type & Manufacturer : _____ N/A _____

Slurry Meets Specifications? **Y** **N**

CLEANOUT METHOD

Bucket **x** _____ Airlift _____ Pump **x** _____

Other: _____

BOTTOM INSPECTION

Visual _____ Tape/Probe **X** _____

Record 2 depths to the bottom of finished shaft:

6.83 _____

_____ 6.83 _____

Ave. Shaft Bottom Elev.: _____ 6.83 _____

Meet Cleanout Specification? **Y: X** **N**

Meet Alignment Specifications? **Y: X** **N**

CASING INFORMATION (if applicable)		
<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>	<u>Casing (Temp / Perm)</u>
Type <u>TEMP</u>	Type _____	Type _____
OD (in.) _____	OD (in.) _____	OD (in.) _____
Thickness _____	Thickness _____	Thickness _____
Top Elev. _____	Top Elev. _____	Top Elev. _____
Length: _____	Length: _____	Length: _____

[illegible]

INSPE 

INSPECTOR SIGNATURE

DATE

7/20/2016

DATE

INSPECTOR SIGNATURE _____

DATE _____

NOTES:

LOCATION AND SURFACE ELEVATION PROVIDED BY KCI. OBSERVED CONCRETE PLACEMENT DELIVERED BY METRO MATERIALS. CONCRETE TESTING PERFORMED BY CDG. DRILLED A TEST LE TO VERIFY ROCK CONTINUITY.