

A d d e n d u m

Iowa Department of Transportation
Office of Contracts

Date of Letting: March 18, 2014
Date of Addendum: March 14, 2014

B.O.	Proposal ID	Proposal Work Type	County	Project Number	Addendum
113	97-0296-186	PCC PAVEMENT - GRADE & REPLACE	WOODBURY	BRFIM-029-6(158)136--05-97 IM-029-6(186)136--13-97 IM-029-6(187)136--13-97 IM-029-6(212)136--13-97 STP-S-C097(121)--5E-97	18MAR113.A03

Notice: Only the bid proposal holders receive this addendum and responsibility for notifying any potential subcontractors or suppliers remains with the proposal holder.

Add the attached geotechnical data sheets for intermediate foundation improvements design to the contract documents.

Electronic versions of the attached sheets are available for download on the Bid Express Website under Supplemental Files.

Year - Lab # 0 - 890 Machine #4
 County Woodbury
 Sender's No. L-151-B3
 Project No. IM-029-6(186)136-13-97
 Station
 Sample at 16.3 ft.
 Material (Field) Stiff Brown Silty Clay
 Material (Lab)

Initial Moisture content: 37.6 percent
 Initial Density: 88.4 pcf
 Starting sample thickness: 0.502 inch

Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0
2 sec	12.2
5 sec	15.2
15 sec	19.2
30 sec	22.2
1 min	24.7
2 min	27.4
4 min	29.8
9 min	31.7
16 min	32.2
25 min	32.7
36 min	32.7
351 min	34.2

Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec	82.0
2 sec	89.0
5 sec	98.0
15 sec	105.0
30 sec	112.1
1 min	119.0
2 min	127.9
4 min	138.8
9 min	146.1
16 min	152.4
25 min	156.8
36 min	179.8
653 min	

Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec	189.2
2 sec	194.2
5 sec	200.2
15 sec	205.4
30 sec	212.0
1 min	218.2
2 min	226.2
4 min	237.2
9 min	247.7
16 min	256.1
25 min	262.6
36 min	288.0
446 min	

Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec	302.9
2 sec	307.9
5 sec	314.3
15 sec	318.9
30 sec	324.1
1 min	329.7
2 min	336.8
4 min	346.7
9 min	355.0
16 min	362.1
25 min	368.1
36 min	387.2
986 min	

Year - Lab # 1 - 35 Machine #1
 County Woodbury
 Sender's No. L-152-B2
 Project No. IM-029-6(186)136-13-97
 Station 21492 +00 CL
 Sample at 11.2 ft.
 Material (Field) Soft Silt

Material (Lab) Gained Moisture When Stored In Moisture Room

Initial Moisture content: 34.4 percent
 Initial Density: 86.58 pcf
 Starting sample thickness: 0.502 inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	
2 sec	43.8	
5 sec	47.8	
15 sec	52.9	
30 sec	56.6	
1 min	60.6	
2 min	65.1	
4 min	71.2	
9 min	76.9	
16 min	81.9	
25 min	86.6	
36 min	90.0	
349 min	103.9	

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	209.8	
5 sec	220.8	
15 sec	233.8	
30 sec	242.7	
1 min	253.1	
2 min	265.1	
4 min	280.6	
9 min	301.0	
16 min	318.3	
25 min	331.7	
36 min	341.9	
994 min	374.0	

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	387.8	
5 sec	392.8	
15 sec	402.4	
30 sec	409.0	
1 min	417.3	
2 min	427.9	
4 min	441.5	
9 min	462.1	
16 min	479.0	
25 min	493.6	
36 min	504.8	
444 min	546.6	

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	564.9	
5 sec	567.0	
15 sec	577.6	
30 sec	585.4	
1 min	594.9	
2 min	607.7	
4 min	624.1	
9 min	648.8	
16 min	669.4	
25 min	686.8	
36 min	700.9	
991 min	714.7	

Year - Lab # 1 - 36 Machine #2
 County Woodbury
 Sender's No. L-157-B1
 Project No. IM-029-6(186)136-13-97
 Station 21504 + 00 CL
 Sample at 9.3 ft.
 Material (Field) Soft Silt

Material (Lab) Gained Moisture When Stored In Moisture Room

Initial Moisture content: 33.5 percent
 Initial Density: 85.7 pcf
 Starting sample thickness: 0.502 inch

Load (ksf) 0.5		Load (ksf) 2.0		Load (ksf) 4.0		Load (ksf) 7.0	
Time	Dial Reading (x 0.0001 in.)	Time	Dial Reading (x 0.0001 in.)	Time	Dial Reading (x 0.0001 in.)	Time	Dial Reading (x 0.0001 in.)
0 sec	0.0	0 sec	185.0	0 sec	373.2	0 sec	479.1
2 sec	46.0	2 sec	190.0	2 sec	379.2	2 sec	487.9
5 sec	49.0	5 sec	196.4	5 sec	390.3	5 sec	497.5
15 sec	51.3	15 sec	201.9	15 sec	395.6	15 sec	502.4
30 sec	52.9	30 sec	205.4	30 sec	399.2	30 sec	506.9
1 min	54.8	1 min	211.4	1 min	403.6	1 min	511.0
2 min	57.0	2 min	221.6	2 min	407.4	2 min	514.4
4 min	59.5	4 min	234.2	4 min	411.6	4 min	518.9
9 min	62.0	9 min	245.2	9 min	414.9	9 min	521.9
16 min	64.3	16 min	251.8	16 min	418.0	16 min	524.3
25 min	66.9	25 min	255.3	25 min	421.3	25 min	526.5
36 min	69.1	36 min	344.0	36 min	435.8	36 min	545.4
355 min	82.4	985 min		454 min		1035 min	

Year - Lab # 1 - 37 Machine #3

County Woodbury

Sender's No. L-157-B2

Project No. IM-029-6(186)136-13-97

Station 21504 + 00 CL

Sample at 18.5 ft.

Material (Field) Soft Silt

Material (Lab)

Initial Moisture content: 31.5 percent
 Initial Density: 92.3 pcf
 Starting sample thickness: 0.502 inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	0.0
2 sec	74.0	74.0
5 sec	86.0	86.0
15 sec	100.2	100.2
30 sec	111.2	111.2
1 min	125.1	125.1
2 min	135.1	135.1
4 min	139.8	139.8
9 min	142.5	142.5
16 min	144.2	144.2
25 min	145.2	145.2
36 min	146.1	146.1
355 min	152.2	152.2

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	231.5	231.5
5 sec	248.5	248.5
15 sec	275.8	275.8
30 sec	290.5	290.5
1 min	300.6	300.6
2 min	306.5	306.5
4 min	310.6	310.6
9 min	314.5	314.5
16 min	316.9	316.9
25 min	318.6	318.6
36 min	320.3	320.3
985 min	332.4	332.4

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	355.2	355.2
5 sec	364.2	364.2
15 sec	379.8	379.8
30 sec	390.0	390.0
1 min	397.3	397.3
2 min	403.5	403.5
4 min	408.3	408.3
9 min	413.2	413.2
16 min	416.2	416.2
25 min	418.3	418.3
36 min	420.1	420.1
454 min	431.9	431.9

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	454.1	454.1
5 sec	463.3	463.3
15 sec	477.4	477.4
30 sec	487.1	487.1
1 min	495.2	495.2
2 min	502.4	502.4
4 min	510.2	510.2
9 min	514.8	514.8
16 min	517.6	517.6
25 min	520.2	520.2
36 min	522.5	522.5
1035 min	541.1	541.1

Year - Lab # 1 - 38 Machine #4
 County Woodbury
 Sender's No. L-159-B
 Project No. IM-029-6(186)136-13-97
 Station 4494 + 90 Rt. 10
 Sample at 19.5 ft.
 Material (Field) Stiff To Firm Silty Clay
 Material (Lab)

Initial Moisture content: 36 percent
 Initial Density: 83.7 pcf
 Starting sample thickness: 0.502 inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	0.0
2 sec	25.2	25.2
5 sec	29.0	29.0
15 sec	33.5	33.5
30 sec	36.7	36.7
1 min	40.1	40.1
2 min	43.5	43.5
4 min	46.4	46.4
9 min	49.6	49.6
16 min	51.2	51.2
25 min	52.2	52.2
36 min	52.9	52.9
355 min	54.9	54.9

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec	141.0	141.0
2 sec	147.0	147.0
5 sec	156.3	156.3
15 sec	162.4	162.4
30 sec	169.2	169.2
1 min	177.3	177.3
2 min	185.6	185.6
4 min	196.8	196.8
9 min	204.7	204.7
16 min	210.5	210.5
25 min	215.1	215.1
36 min	215.1	215.1
985 min	238.2	238.2

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec	262.2	262.2
2 sec	267.2	267.2
5 sec	274.4	274.4
15 sec	279.6	279.6
30 sec	286.2	286.2
1 min	293.0	293.0
2 min	301.4	301.4
4 min	314.0	314.0
9 min	324.1	324.1
16 min	332.9	332.9
25 min	340.0	340.0
36 min	340.0	340.0
454 min	372.2	372.2

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec	389.9	389.9
2 sec	394.9	394.9
5 sec	401.7	401.7
15 sec	407	407
30 sec	412.9	412.9
1 min	420.6	420.6
2 min	430.1	430.1
4 min	445	445
9 min	457.3	457.3
16 min	468.8	468.8
25 min	479.1	479.1
36 min	479.1	479.1
1035 min	535.1	535.1

Year - Lab # 1 - 72 Machine #6
 County Woodbury
 Sender's No. L-163-B
 Project No. IM-029-6(186)136-13-97
 Station 21498 + 00 C.L.
 Sample at 4.3 ft.
 Material (Field) Gray Brown Silty Clay (Soft)
 Material (Lab) Dry Crumbly, Erratic Readings On First Load

Initial Moisture content: 18.7 percent
 Initial Density: 85.8 pcf
 Starting sample thickness: 0.502 inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	0.0
2 sec	78.0	78.0
5 sec	87.0	87.0
15 sec	105.0	105.0
30 sec	121.9	121.9
1 min	137.1	137.1
2 min	153.0	153.0
4 min	165.2	165.2
9 min	174.6	174.6
16 min	182.1	182.1
25 min	188.6	188.6
36 min	193.3	193.3
355 min	211.2	211.2

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec	405.9	405.9
2 sec	428.9	428.9
5 sec	458.9	458.9
15 sec	474.1	474.1
30 sec	487.0	487.0
1 min	499.2	499.2
2 min	510.3	510.3
4 min	522.0	522.0
9 min	529.7	529.7
16 min	535.2	535.2
25 min	539.7	539.7
36 min	570.4	570.4
985 min		

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec	629.7	629.7
2 sec	647.7	647.7
5 sec	672.7	672.7
15 sec	689.9	689.9
30 sec	705.8	705.8
1 min	720.9	720.9
2 min	733.9	733.9
4 min	747.5	747.5
9 min	754.9	754.9
16 min	762.5	762.5
25 min	767.6	767.6
36 min	794.9	794.9
454 min		

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec	832.9	832.9
2 sec	844.9	844.9
5 sec	862.7	862.7
15 sec	875.4	875.4
30 sec	890.1	890.1
1 min	903.8	903.8
2 min	917.1	917.1
4 min	931.1	931.1
9 min	939.7	939.7
16 min	945.7	945.7
25 min	950.1	950.1
36 min	980.0	980.0
1035 min		

Year - Lab # 1 - 73 Machine #7
 County Woodbury
 Sender's No. L-165-A
 Project No. IM-029-6(186)136-13-97
 Station 4493 + 00 C.L.
 Sample at 1.0 ft.
 Material (Field) Black Silty Clay Loam

Material (Lab)

Initial Moisture content: 28.2 percent
 Initial Density: 90.5 pcf
 Starting sample thickness: 0.502 inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	0.0
2 sec	35.3	35.3
5 sec	39.4	39.4
15 sec	45.1	45.1
30 sec	48.3	48.3
1 min	51.5	51.5
2 min	53.9	53.9
4 min	56.4	56.4
9 min	59.2	59.2
16 min	60.4	60.4
25 min	61.6	61.6
36 min	62.5	62.5
355 min	68.2	68.2

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec	138.2	138.2
2 sec	148.4	148.4
5 sec	160.2	160.2
15 sec	167.5	167.5
30 sec	173.8	173.8
1 min	179.3	179.3
2 min	184.1	184.1
4 min	189.0	189.0
9 min	192.0	192.0
16 min	195.5	195.5
25 min	196.7	196.7
36 min	219.0	219.0
985 min		

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec	249.4	249.4
2 sec	257.4	257.4
5 sec	269.4	269.4
15 sec	278.1	278.1
30 sec	286.6	286.6
1 min	294.6	294.6
2 min	302.7	302.7
4 min	311.7	311.7
9 min	318.1	318.1
16 min	323.0	323.0
25 min	326.1	326.1
36 min	349.3	349.3
454 min		

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec	380.5	380.5
2 sec	391.5	391.5
5 sec	406.4	406.4
15 sec	416.4	416.4
30 sec	426.5	426.5
1 min	437.5	437.5
2 min	449.4	449.4
4 min	458.7	458.7
9 min	467.6	467.6
16 min	478.6	478.6
25 min	483.3	483.3
36 min	544.5	544.5
1035 min		

Year - Lab # **1 - 84** Machine #1
 County **Woodbury**
 Sender's No. **L-165-B**
 Project No. **IM-029-6(186)136-13-97**
 Station **4493 + 00 C.L.**
 Sample at **6.3 ft.**
 Material (Field) **Soft To Stiff Gray Brown Silty Clay**

Material (Lab)

Initial Moisture content: 39.1 percent
 Initial Density: 80.2 pcf
 Starting sample thickness: **0.502** inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	
2 sec	32.8	
5 sec	38.8	
15 sec	44.0	
30 sec	48.2	
1 min	51.7	
2 min	55.0	
4 min	58.1	
9 min	61.0	
16 min	62.9	
25 min	63.8	
36 min	64.6	
355 min	67.7	

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec		146.8
2 sec		157.8
5 sec		169.0
15 sec		176.0
30 sec		183.9
1 min		192.1
2 min		200.6
4 min		210.9
9 min		219.0
16 min		224.3
25 min		227.7
36 min		259.1
985 min		

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec		271.8
2 sec		279.0
5 sec		290.0
15 sec		296.3
30 sec		303.2
1 min		311.3
2 min		320.9
4 min		334.9
9 min		345.6
16 min		353.6
25 min		359.9
36 min		387.9
454 min		

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec		413.6
2 sec		422.6
5 sec		432.6
15 sec		439.4
30 sec		447.3
1 min		455.6
2 min		465.4
4 min		481.1
9 min		494.6
16 min		505.6
25 min		517.5
36 min		563.7
1035 min		

Year - Lab # 1 - 87 Machine #4
 County Woodbury
 Sender's No. L-170-A
 Project No. IM-029-6(186)136-13-97
 Station 21490 + 00 C.L.
 Sample at 3.3 ft.
 Material (Field) Stiff Dark Brown Silty Clay
 Material (Lab)

Initial Moisture content: 23.8 percent
 Initial Density: 94.6 pcf
 Starting sample thickness: 0.502 inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	0.0
2 sec	34.2	34.2
5 sec	40.0	40.0
15 sec	45.1	45.1
30 sec	48.3	48.3
1 min	51.4	51.4
2 min	54.6	54.6
4 min	57.0	57.0
9 min	59.2	59.2
16 min	60.7	60.7
25 min	61.6	61.6
36 min	62.4	62.4
355 min	67.1	67.1

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec	148.0	148.0
2 sec	159.8	159.8
5 sec	172.6	172.6
15 sec	181.3	181.3
30 sec	191.1	191.1
1 min	199.5	199.5
2 min	206.9	206.9
4 min	214.1	214.1
9 min	218.2	218.2
16 min	221.4	221.4
25 min	223.9	223.9
36 min	240.8	240.8
985 min		

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec	277.2	277.2
2 sec	287.2	287.2
5 sec	299.2	299.2
15 sec	308.2	308.2
30 sec	318.0	318.0
1 min	328.0	328.0
2 min	337.4	337.4
4 min	348.5	348.5
9 min	356.0	356.0
16 min	361.2	361.2
25 min	365.4	365.4
36 min	390.4	390.4
454 min		

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec	428.9	428.9
2 sec	440.9	440.9
5 sec	453.0	453.0
15 sec	461.6	461.6
30 sec	470.1	470.1
1 min	479.7	479.7
2 min	489.8	489.8
4 min	502.8	502.8
9 min	512.8	512.8
16 min	521.0	521.0
25 min	527.7	527.7
36 min	565.4	565.4
1035 min		

Year - Lab # **1 - 88** Machine #5
 County **Woodbury**
 Sender's No. **L-170-B**
 Project No. **IM-029-6(186)136-13-97**
 Station **21490 + 00 C.L.**
 Sample at **9.3 ft.**
 Material (Field) **Stiff / Firm Gr Br Gumbo Like Silty Clay W/ss**

Material (Lab)

Initial Moisture content: 41.5 percent
 Initial Density: 81.4 pcf
 Starting sample thickness: **0.502** inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	0.0
2 sec	30.6	30.6
5 sec	37.4	37.4
15 sec	45.4	45.4
30 sec	52.3	52.3
1 min	60.0	60.0
2 min	68.3	68.3
4 min	75.8	75.8
9 min	82.4	82.4
16 min	85.4	85.4
25 min	86.3	86.3
36 min	87.0	87.0
355 min	90.7	90.7

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec	167.1	167.1
2 sec	177.2	177.2
5 sec	191.4	191.4
15 sec	203.5	203.5
30 sec	217.9	217.9
1 min	231.4	231.4
2 min	243.0	243.0
4 min	252.3	252.3
9 min	256.8	256.8
16 min	258.9	258.9
25 min	260.7	260.7
36 min	272.9	272.9
985 min		

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec	291.4	291.4
2 sec	297.5	297.5
5 sec	308.3	308.3
15 sec	318.4	318.4
30 sec	329.6	329.6
1 min	342.3	342.3
2 min	355.4	355.4
4 min	367.4	367.4
9 min	374.4	374.4
16 min	378.3	378.3
25 min	381.7	381.7
36 min	399.7	399.7
454 min		

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec	416.0	416.0
2 sec	422.0	422.0
5 sec	433.5	433.5
15 sec	444.2	444.2
30 sec	458.1	458.1
1 min	475.0	475.0
2 min	492.3	492.3
4 min	509.6	509.6
9 min	519.8	519.8
16 min	526.4	526.4
25 min	531.1	531.1
36 min	561.3	561.3
1035 min		

Year - Lab # 1 - 92 Machine #9
 County Woodbury
 Sender's No. L-0174-C
 Project No. IM-029-6(186)136-13-97
 Station 5502 + 00 C.L.
 Sample at 11.3 ft.
 Material (Field) Stiff Dark Brown Silty Clay

Material (Lab)

Initial Moisture content: 29.1 percent
 Initial Density: 91.1 pcf
 Starting sample thickness: 0.502 inch

Time	Load (ksf) 0.5	Dial Reading (x 0.0001 in.)
0 sec	0.0	0.0
2 sec	26.0	26.0
5 sec	30.0	30.0
15 sec	35.1	35.1
30 sec	38.4	38.4
1 min	42.1	42.1
2 min	46.0	46.0
4 min	49.7	49.7
9 min	53.5	53.5
16 min	54.9	54.9
25 min	56.1	56.1
36 min	57.1	57.1
355 min	62.0	62.0

Time	Load (ksf) 2.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	139.1	139.1
5 sec	149.3	149.3
15 sec	162.2	162.2
30 sec	170.3	170.3
1 min	181.2	181.2
2 min	191.1	191.1
4 min	200.9	200.9
9 min	210.5	210.5
16 min	218.3	218.3
25 min	223.1	223.1
36 min	227.9	227.9
985 min	269.3	269.3

Time	Load (ksf) 4.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	273.0	273.0
5 sec	280.0	280.0
15 sec	292.0	292.0
30 sec	301.3	301.3
1 min	310.5	310.5
2 min	321.6	321.6
4 min	331.2	331.2
9 min	343.7	343.7
16 min	352.2	352.2
25 min	358.2	358.2
36 min	363.2	363.2
454 min	386.8	386.8

Time	Load (ksf) 7.0	Dial Reading (x 0.0001 in.)
0 sec		
2 sec	417.7	417.7
5 sec	429.7	429.7
15 sec	443.5	443.5
30 sec	453.5	453.5
1 min	463.9	463.9
2 min	475.9	475.9
4 min	488.9	488.9
9 min	504.2	504.2
16 min	515.7	515.7
25 min	524.0	524.0
36 min	530.2	530.2
1035 min	590.7	590.7