STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 1

FOR

KOHALA MOUNTAIN ROAD
PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI

PROJECT NO. 250A-01-06M

DISTRICT OF SOUTH KOHALA

ISLAND OF HAWAII

FY 2009

Amend the bid documents as follows:

A. PLANS

1. Plan Sheet No. 47. Delete all references pertaining to paving under guardrails, including General Notes 5. and 7.

2. Plan Sheet No. 55, Cross Sections 749+00 and 750+00 – delete note "(use 8' post)".

3. Boring log is attached for information.

B. PRE-BID CONFERENCE MINUTES

Conference minutes and sign-in sheet are attached for information.

C. CLARIFICATION

1. The intent of the project is to reconstruct the roadway to the dimensions shown on the plans using a cold planer or other similar equipment. Cutting of rock slopes with an excavator or similar type of equipment is not the intent of this project.

2. For areas where the dimension from centerline striping to toe of cut slope or face of existing guardrail to remain is less than 12 feet, the 7.25 feet width of excavation shall remain unchanged, beginning at the edge of the cut slope or guardrail face and extending towards the centerline stripe. The 4.75' dimension will vary accordingly.

Please acknowledge receipt of this Addendum No. 1 by recording the date of its receipt in the space provided on Page P-4 of the Proposal.

BRENNON T. MORIOKA, Ph.D., P.E.
Director of Transportation

EXISTING PAVEMENT SECTIONS				
Station Number	Original Travelway		Shoulder Lane Conversion	
	AC	Base	AC	Base
768+00	B-1A		B-1B	
	3/4	3	2.5	3
747+80	B-2B		B-2A	
			4.5	4
	6/3	3	B-2C	
			5	4
726+10	B-3A		B-3B	
	5/3	2	5	3
594+45	B-4B		B-4A	
	2/2.5	5	6	2
Note: The numbers shown are in inches. 6/3 indicates 6 inches of AC overlay over 3 inches of original AC.				

Below the existing pavement section, our field exploration indicated that the majority of the existing roadway alignment is generally underlain by very stiff to hard silty clay, clayey silt, and sandy silt soils extending to a depth of approximately 6 feet below the existing pavement surface. It should be noted that soft to medium stiff sandy silts were encountered below the near-surface stiff clayey soils in Boring Nos. 1A, 1B, and 3B. In addition, dense silty gravel instead of clayey soils were encountered in Boring Nos. 2B and 2C drilled at about Sta. 747+80 extending to the maximum depth explored of approximately 12.5 feet below the existing pavement surface.

We did not encounter groundwater in the shallow borings at the time of our field exploration. However, groundwater levels are subject to change due to rainfall, seasonal precipitation, surface water runoff, and other factors.

Detailed descriptions of the field exploration methodology are presented in Appendix A. Descriptions and graphic representations of the materials encountered in the borings are presented on the Logs of Borings in Appendix A. Laboratory tests were performed on selected soil samples, and the test results are presented in Appendix B. Results of the field permeability tests are provided in Appendix C.

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Log Legend

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISIONS			USCS	TYPICAL DESCRIPTIONS
COARSE-GRAINED SOILS — MORE THAN 50% OF MATERIAL RETAINED ON NO. 200 SIEVE	GRAVELS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS — LESS THAN 5% FINES	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES — MORE THAN 12% FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS — 50% OR MORE OF COARSE FRACTION PASSING THROUGH NO. 4 SIEVE	CLEAN SANDS — LESS THAN 5% FINES	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES — MORE THAN 12% FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE-GRAINED SOILS — 50% OR MORE OF MATERIAL PASSING THROUGH NO. 200 SIEVE	SILTS AND CLAYS — LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS — LIQUID LIMIT 50 OR MORE		MH	INORGANIC SILT, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

LEGEND

	(2-INCH) O.D. STANDARD PENETRATION TEST	LL	LIQUID LIMIT
	(3-INCH) O.D. MODIFIED CALIFORNIA SAMPLE	PI	PLASTICITY INDEX
S	SHELBY TUBE SAMPLE	TV	TORVANE SHEAR (tsf)
G	GRAB SAMPLE	PEN	POCKET PENETROMETER (tsf)
	CORE SAMPLE	UC	UNCONFINED COMPRESSION (psi)
		▽	WATER LEVEL OBSERVED IN BORING

Plate

A

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **1A**

Approximate Ground Surface Elevation (feet MSL): 2426 *

Laboratory: Other Tests	Laboratory: Moisture Content (%)	Laboratory: Dry Density (pcf)	Field: Core Recovery (%)	Field: RQD (%)	Field: Penetration Resistance (blows/foot)	Field: Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											3-inch **ASPHALTIC CONCRETE OVERLAY**
											4-inch **ASPHALTIC CONCRETE**
	21	89			8/.3' Ref.	2.0				GW CH	Dark gray **SANDY GRAVEL (BASALTIC)**, dense, dry (base course)
											Dark brown with multi-color mottling **SILTY CLAY** with some gravel (basaltic), very stiff, damp
											grades with cobbles (basaltic) at 1.8 feet
	37				7	0.5				ML	Dark brown fine **SANDY SILT**, soft to medium stiff, damp
	43				11	1.5	5				
											Boring terminated at 6 feet
											* Elevations estimated from Topographic Survey Map transmitted by Wesley R. Segawa & Associates, Inc. on October 17, 2007.
							10				
							15				

Date Started:	June 28, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 28, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	
Total Depth:	6 feet	Drilling Method: 4" Auger	A - 1
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 11/19/07

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **1B**

Laboratory			Field							
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											Approximate Ground Surface Elevation (feet MSL): 2426 *
											2.5-inch **ASPHALTIC CONCRETE**
										SW	Dark gray **GRAVELLY SAND (BASALTIC)**, medium dense, dry (base course)
LL=55 PI=26	13	81			33					CH	Dark brown with multi-color mottling **SILTY CLAY** with some gravel (basaltic), very stiff, damp
	40				5					ML	Orangish brown fine **SANDY SILT**, soft, damp
	31				14		5				grades with gravel (basaltic), medium stiff
											Boring terminated at 6 feet
							10				
							15				

Date Started:	June 28, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 28, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	
Total Depth:	6 feet	Drilling Method: 4" Auger	A - 2
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 11/19/07

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **2A**

Approximate Ground Surface Elevation (feet MSL): 2517 *

Laboratory			Field							
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											4.5-inch **ASPHALTIC CONCRETE**
										SM / ML	Orange **SILTY SAND (BASALTIC)** with some gravel, medium dense, dry (base course)
	25	87			50/.3' Ref.						Brown with multi-color mottling **SANDY SILT** with gravel (basaltic), hard, dry (colluvium)
	19				44						grades with some clay and cobbles (basaltic)
	2				15/.3' Ref.						
					20/.3' Ref.		5				Boring terminated at 5.3 feet
							10				
							15				

Date Started:	June 29, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 29, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	
Total Depth:	5.3 feet	Drilling Method: 4" Auger	A - 3
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 11/19/07

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **2B**

Approximate Ground Surface Elevation (feet MSL): 2517.5 *

Laboratory: Other Tests	Laboratory: Moisture Content (%)	Laboratory: Dry Density (pcf)	Field: Core Recovery (%)	Field: RQD (%)	Field: Penetration Resistance (blows/foot)	Field: Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											6-inch **ASPHALTIC CONCRETE OVERLAY**
											3-inch **ASPHALTIC CONCRETE**
										GW GM	Light brown **SANDY GRAVEL (BASALTIC)** with silt, dense, dry (base course)
	13				13/.5' +8/.3' Ref.						Gray **SILTY GRAVEL (BASALTIC)** with sand, dense, dry
	9				12/.5' +15/.3' Ref.						grades to brown
	17				19		5			ML	Orangish brown fine **SANDY SILT** with some gravel (basaltic), medium stiff, dry
											Boring terminated at 6 feet
							10				
							15				

Date Started:	June 29, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 29, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	
Total Depth:	6 feet	Drilling Method: 4" Auger	A - 4
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 1/11/07

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **2C**

Approximate Ground Surface Elevation (feet MSL): 2516.5 *

Laboratory: Other Tests	Laboratory: Moisture Content (%)	Laboratory: Dry Density (pcf)	Field: Core Recovery (%)	Field: RQD (%)	Field: Penetration Resistance (blows/foot)	Field: Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											5-inch **ASPHALTIC CONCRETE**
										SM / GM	Orange **SILTY SAND (BASALTIC)** with some gravel, medium dense, dry (base course)
	8				18/.3' Ref.						Gray **SILTY GRAVEL (BASALTIC)** with sand, very dense, dry (colluvium)
	10				24/.5' +16/.3' Ref.						
	9				12/.5' +8/.3' Ref.		5				grades to light brown
	11				15/.3' Ref.		10				
					8/.0' Ref.		15				Gray **BASALT**, very dense Boring terminated at 12.5 feet

Date Started:	June 29, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 29, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	A - 5
Total Depth:	12.5 feet	Drilling Method: 4" Auger	
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING_LOG 5752-00.GPJ GEOLABS.GDT 12/6/07

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **3A**

Approximate Ground Surface Elevation (feet MSL): 2649.5 *

Laboratory			Field							
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											6-inch **ASPHALTIC CONCRETE OVERLAY**
											3-inch **ASPHALTIC CONCRETE**
	21	66			61					SW SM	Dark brown **GRAVELLY SAND (BASALTIC)**, medium dense, dry (base course)
											Dark brown **SILTY SAND (BASALTIC)** with gravel and some cobbles, dense, dry (colluvium)
	7				23					GW-GM	Gray **GRAVEL (BASALTIC)** with silt and sand, medium dense, dry
	12				13		5				
											Boring terminated at 5.5 feet
							10				
							15				

Date Started:	June 29, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 29, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	
Total Depth:	5.5 feet	Drilling Method: 4" Auger	A - 6
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 11/19/07

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Geotechnical Engineering

KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **3B**

Laboratory			Field							
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS
LL=45 PI=3	35	68			30	2.0				GW / ML
	21				7					ML
	16				9		5			
							10			
							15			

Approximate Ground Surface Elevation (feet MSL): 2649.5 *

Description

5-inch **ASPHALTIC CONCRETE**

Brown **SANDY GRAVEL (BASALTIC)** with silt, medium dense, dry (base course)

Brown with multi-color mottling fine **SANDY SILT** with some clay, very stiff, damp

Dark brown with multi-color mottling fine **SANDY SILT** with gravel (basaltic), soft to medium stiff, damp

Boring terminated at 5.5 feet

Date Started:	June 29, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 29, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	
Total Depth:	5.5 feet	Drilling Method: 4" Auger	A - 7
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 11/30/07

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **4A**

Laboratory			Field							
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS

Approximate Ground Surface Elevation (feet MSL): 3201 *

Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											6-inch **ASPHALTIC CONCRETE**
								B		GW MH	Light brown with gray mottling **SANDY GRAVEL (BASALTIC)**, dense, dry (base course)
LL=77 PI=7	51	50			44						Grayish brown **CLAYEY SILT**, hard, dry (kohala ash)
	11				19						grades with gravel (basaltic)
	33				9		5				
											Boring terminated at 5.5 feet
							10				
							15				

Date Started:	June 29, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 29, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	A - 8
Total Depth:	5.5 feet	Drilling Method: 4" Auger	
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 11/19/07

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KOHALA MOUNTAIN ROAD PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
SOUTH KOHALA, ISLAND OF HAWAII

Log of Boring **4B**

Approximate Ground Surface Elevation (feet MSL): 3201 *

Laboratory			Field								
Other Tests	Moisture Content (%)	Dry Density (pcf)	Core Recovery (%)	RQD (%)	Penetration Resistance (blows/foot)	Pocket Pen. (tsf)	Depth (feet)	Sample	Graphic	USCS	Description
											2-inch **ASPHALTIC CONCRETE OVERLAY**
										GW	2.5-inch **ASPHALTIC CONCRETE**
	32	51			14	2.5				MH	Light brown **SANDY GRAVEL**, dense, dry (base course)
											Grayish brown **CLAYEY SILT**, hard, dry (kohala ash)
	36				13						grades with gravel (basaltic)
	28				15		5				
											Boring terminated at 5.5 feet
							10				
							15				

Date Started:	June 29, 2007	Water Level: ▽ Not Encountered	Plate
Date Completed:	June 29, 2007		
Logged By:	Y. Chiba	Drill Rig: MOBILE B-53	
Total Depth:	5.5 feet	Drilling Method: 4" Auger	A - 9
Work Order:	5752-00	Driving Energy: 140 lb. wt., 30 in. drop	

BORING LOG 5752-00.GPJ GEOLABS.GDT 11/19/07

DEPARTMENT OF TRANSPORTATION
MEMORANDUM FOR THE RECORD

DATE: June 10, 2009

HIGHWAYS
DIVISION
HAWAII DISTRICT
BRANCH OR SECTION

PURPOSE OF MEETING: **NON-MANDATORY PRE-BID CONFERENCE** for:
KOHALA MOUNTAIN ROAD, PAVEMENT REPAIRS
WAIAKA JUNCTION TOWARD HAWI
PROJECT NO. 250A-01-06M

DATE, TIME & PLACE:
June 10, 2009, 9:10 A.M., Hawaii District Office (50 Makaala St., Hilo, HI. 96720)

PARTICIPANTS:
See attached Sign-In Sheet

BRIEF SUMMARY OF MEETING:

1. Roy made the following announcement:
   Plan Sheet 7. Be aware that the dimensions are from the centerline striping (not baseline).

2. Question: Where will the cold planed material be stockpiled?
   Response: Highways Waimea Baseyard or a comparable distance from the project limits.

3. Question: Where will the field office be located?
   Response: Probably at the Highways Waimea Baseyard.

4. Question: Do we need to pave under the guardrails as shown on plan sheet 47?
   Response: No.

Meeting adjourned at 9:40 a.m.

PRE-BID CONFERENCE (NON-MANDATORY)

Project: KOHALA MOUNTAIN ROAD, PAVEMENT REPAIRS, WAIAKA JUNCTION TOWARD HAWI ISLAND OF HAWAII

Project No.: 250A-01-06M

Date & Time: JUNE 10, 2009 9:00 A.M. (50 MAKAALA ST., HILO, HI.)

NAME (Print)	COMPANY	PHONE NO.	FAX NO.	EMAIL ADDRESS
Roy Shioji	DOT - Highways	933-2755	933-8869	roy.shioji@hawaii.gov
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~~GLENN YAMADA~~	~~YAMADA AND SONS, INC~~	933-8424	933-8415	g@yamadasons.com
GAL PANEM	DOT - HWYS	933-8806	933-8869	Gal.panem@hawaii.gov