

**AMENDMENT NO. 1
TO PROFESSIONAL SERVICES AGREEMENT
BETWEEN SANTA FE COUNTY AND BOHANNAN HUSTON, INC. TO PROVIDE
PROFESSIONAL ENGINEERING SERVICES**

This Amendment is made and entered into as of this 3rd day of August, 2018 by and between **Santa Fe County**, hereinafter referred to as the "County", a political subdivision of the State of New Mexico, and **Bohannon Huston, Inc.**, hereafter referred to as the "Engineer".

WHEREAS, the County entered into Agreement No. 2018-0106-PW/MM (the "Agreement") dated November 21, 2017, with the Engineer to provide professional engineering services for County Road 54 Los Pinos all weather crossing at Arroyo de Chamisos; and

WHEREAS, Article 12 (No Oral Modifications; Written Amendments Required) of the Agreement allows the parties to amend the Agreement by an instrument in writing executed by the parties; and

WHEREAS, by this Amendment No. 1 the County wishes to decrease the compensation payable to the Engineer by a sum of \$14,414.00.

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, the parties hereto mutually agree as follows:

1. Article 3.A.2) (Compensation, Invoicing, and Set-Off) a subparagraph (a) is inserted to read:
 - (a) By Amendment No. 1, the compensation payable to the Engineer is decreased by a sum of \$14,414.00, exclusive of New Mexico grt. The total amount payable to the Engineer shall not exceed \$40,546.00, exclusive of NM grt.
2. All other provisions of the Agreement not specifically amended or modified by this Amendment No. 1 shall remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this Amendment as of the date of last signature by the parties below.

SANTA FE COUNTY



Katherine Miller
Santa Fe County Manager

6-3-18
Date

Approved as to form:



R. Bruce Frederick
Santa Fe County Attorney

7-31-18
Date

Finance Department:



Stephanie Schardin Clarke
Finance Director

7/31/18
Date

ENGINEER:

Signature

Date


Print name & title

Approved as to form:


R. Bruce Frederick
Santa Fe County Attorney

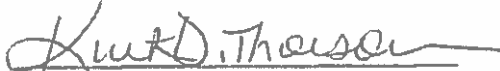
7-31-18
Date

Finance Department:


Stephanie Schardin Clarke
Finance Director

7/31/18
Date

ENGINEER:

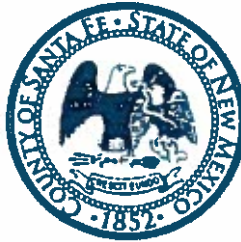

Signature
KURT D. THORSON
SENIOR VICE PRESIDENT
Print name & title

8.2.18
Date

Henry Roybal
Commissioner, District 1

Anna Hanson
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Anna Tricia Hamilton
Commissioner, District 4

Edward Moreno
Commissioner, District 5

Katherine Miller
County Manager

MEMORANDUM

DATE: *July 16, 2018*

TO: *Bill Taylor, Procurement Manager*

FROM: *Shannon Vigil, Project Manager* SV 7/18/18

CC: *Diego Gomez, Project Engineer*
Michael Kelley, Public Work Director MK 7/18/18

ITEM AND ISSUE: *Amendment #1 for CR 54 Los Pinos AWC at Arroyo de los Chamisos*

During the design for CR 54 Los Pinos Road AWC at Arroyo de los Chamisos, Bohannon Huston had a Geotechnical Report that identified water at 9' below the existing ground level. Having this knowledge Bohannon Huston designed the Concrete Box Culvert (CBC) foundation below the ground water elevation without identifying that the Contractor needed to perform dewatering and foundation stabilization. During excavation for the foundation of the CBC, the contractor encountered groundwater and submitted Change Order #2 in the amount of \$80,556.92, exclusive of NMGR, to Santa Fe County. Santa Fe County asked Bohannon Huston in a meeting to calculate the premium cost for doing this work. Bohannon Huston came up with the calculations attached and Santa Fe County agrees with the decrease amount of \$14,414.00, exclusive of NMGR.

This deduction of costs will need to be included in the Santa Fe County Agreement No. 2018-0106-PW/MM with Bohannon Huston, Inc. If you have any questions please feel free to contact me at 505-995-6516.

Bohannon Huston

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

www.bhinc.com

voice: 505.823.1000
facsimile: 505.798.7988
toll free: 800.877.5332

May 16, 2018

Michael Kelley, PE
Santa Fe County Public Works Director
PO Box 276
Santa Fe, NM 87504

Re: Los Pinos Rd (CR 54) – Change Order # 1
Construction Issue Regarding Dewatering and Stabilization Under the Concrete Box
Culvert (CBC)

Dear Mr. Kelley:

This letter is intended as a follow up to a meeting held on April 6, 2018 with you and your staff, regarding the change order for subgrade stabilization on the Los Pinos Road - Concrete Box Culvert installation. The history related to the change order and design plans prepared by Bohannon Huston staff, is further summarized in an attached letter, dated February 27, 2019, to Shannon Vigil, Project Manager II, Santa Fe County Public Works.

During the meeting, the County indicated they were willing to pay for material and labor costs for items in the change order related to the required stabilization, using fair market costs, since the County would have paid for this if the bid items had been included in the plans. It was further discussed that Bohannon Huston should be responsible for any charges above fair market (premium) resulting in the change order items not being competitively bid.

The change order consisted of 20 listed items which we have separated into 4 primary pay items for comparison against available unit price bid items. (See attachment "A"). We have excluded the Overhead charge, since that rate should be the same rate the contractor applied to the base bid contract items and not subject to an inflated rate. In the case of the wood forms, traffic control management, labor, equipment and fuel for the stabilization, we summed their costs and prorated them to the large rock and smaller rock items, based on total volume of each. In the case of the rock items we calculated a unit price by dividing the total costs for each of those items by the total volume of material installed. The resultant unit prices and total by item for the change order are:

1. Excavation of unsuitable material	\$28.00/ CY x 290 CY = \$ 8120.00
2. 4" to 8" diameter rock 12 inches deep	\$56.12/ SY x 475 SY = \$26657.00
3. 1-1/2" diameter rock 6 inches deep	\$35.13/SY x 475 SY = \$16687.00
4. Dewatering	\$2180/ Day = \$21800.00
5. Overhead	<u>\$ 7291.81</u>
Subtotal	\$80555.81

In comparing the Change Order unit costs to industry standards, we utilized NMDOT historic bid data from 2017 for applicable items. (See attached documents)

For Item 1: Excavation of Unsuitable material - we calculated the average unit bid price for similar quantities to be \$47.70/CY, which is more than the contractor charged, therefore we do not believe a premium was paid by the county on this item.

Engineering 

Spatial Data 

Advanced Technologies 

For Item 2: 4-8" diameter rock - NMDOT has two bid items which are similar. Class "B" rip rap is typically dumped, but if the rock is bigger than 6 inches; we calculated the average unit bid price to be \$31.33/SY. Class "G" rip rap is 4 -8 inches, however typically hand placed; we calculated the average unit bid price to be \$ 55.79/SY. Since neither of these items meet exact specifications of material type and placement operation, we suggest using an average of the two, which would be \$43.56/SY. The County paid \$56.12/SY, or a potential premium of \$12.56 /SY x 475 SY = \$5,966.

For Item 3: 1-1/2" diameter rock - NMDOT does not have a comparable item and we've not been able to identify a similar pay item from other available sources. Therefore, we suggest using the same % premium as was potentially applied to Item 2 (28%). A 28% premium would suggest an industry standard unit cost of \$27.45/SY for the smaller rock. The County paid \$35.13/SY for the material, or a potential premium of \$7.68/SY x 475 SY = \$3,648.

For Item 4: Dewatering - NMDOT does not have a comparable item for this. Most cost data available for dewatering is based on LS bids per project, or per linear foot of trench. Our construction management team processed a change order on a job earlier this year for dewatering of a bore/jack pit. That operation required less pumps than this one, so we doubled the cost to reflect the number of pumps used on this operation. The resultant cost was \$ \$1,220.00/day. The County paid \$2180/day, or a potential premium of \$960/day x 10 days = \$9,600. As outlined in the February 27, 2018 letter to Shannon Vigil, the county assembled the specification book for the project and removed the Pre-Cast specification when the project design was changed. While BHI understands we did not implement the correct bid item needed for constructing the Cast-in-Place Box with dewatering included, we would ask that the County consider splitting the cost of the dewatering premium with us.

If the terms outlined above are agreeable, then BHI would be responsible for the following: \$5966 premium on Item 2, Large Rock, \$3,648 premium on Item 3, Small Rock, \$4,800 premium for Item 4 - Dewatering. The total for those is \$ 14,414 plus applicable NMGR @ 7.125% (\$1,027.00) for a total of \$ 15,441.00

Upon your review of this information, please contact me with any questions. If you would like to have a meeting to discuss this further, we are willing to do so at your convenience.

Sincerely,



Kurt D. Thorson, PE
Senior Vice President
Traffic & Transportation

KDT/kap

cc: Jeanette Walther, Project Manager
Leslie Small, Chief Operations Officer

ATTACHMENT "A"

H.O. CONSTRUCTION, INC
PO BOX 9468
ALBUQUERQUE, NM 87119
PHONE: 505-873-0554

Estimate		
Date	Estimate #	2018-9
02/06/2018		

Name / Address
Engineering Associate Santa Fe County Public Works

Project				
Item	Description	Qty	Rate	Total
1	CHANGE ORDER (STABILIZATION FOR SURGRADE ON CULVERT AND WING WALLS)			
2	DIRT REMOVAL AND EXCAVATION 50X50' STABILIZATION BASE UNDER DUX CULVERT 4" TO 8" CRUSHED ROCK 1" DEEP	200	28.00	5,600.00
3	4" TO 8" CRUSHED ROCK DELIVERY	192.46	45.00	8,741.70
4	WING WALLS STABILIZATION SUB BASE UNDER WING WALLS WITH 4" TO 8" BASALT CRUSHED ROCK	181.46	45.00	8,206.70
5	4" TO 8" BASALT CRUSHED ROCK DELIVERY	1021	8.00	8,168.00
6	50' X 50' STABILIZATION SUB BASE UNDER DUX CULVERT WITH 1-1/2" BASALT CRUSHED ROCK 4" DEEP	1021	43.00	44,113.00
7	1-1/2" BASALT CRUSHED ROCK DELIVERY	97	8.00	776.00
8	50' X 50' STABILIZATION SUB BASE UNDER WING WALLS WITH 1-1/2" BASALT CRUSHED ROCK 4" DEEP	77	43.00	3,311.00
9	1-1/2" BASALT CRUSHED ROCK DELIVERY	77	8.00	616.00
10	WOOD FORMS TO STAY IN PLACE WITH STEAKS (120 STKS)	630	2.82	1,766.60
11	TRAFFIC CONTROL (MANAGEMENT)	10	50.00	500.00
Subtotal				98,742.00
Sales Tax (7.125%)				7,034.50
Total				105,776.50

Phone #	Fax #
505-873-0554	505-452-0844

Continued next page

Estimate

H.O. CONSTRUCTION, INC
PO BOX 9468
ALBUQUERQUE, NM 87119
PHONE: 505-873-0554

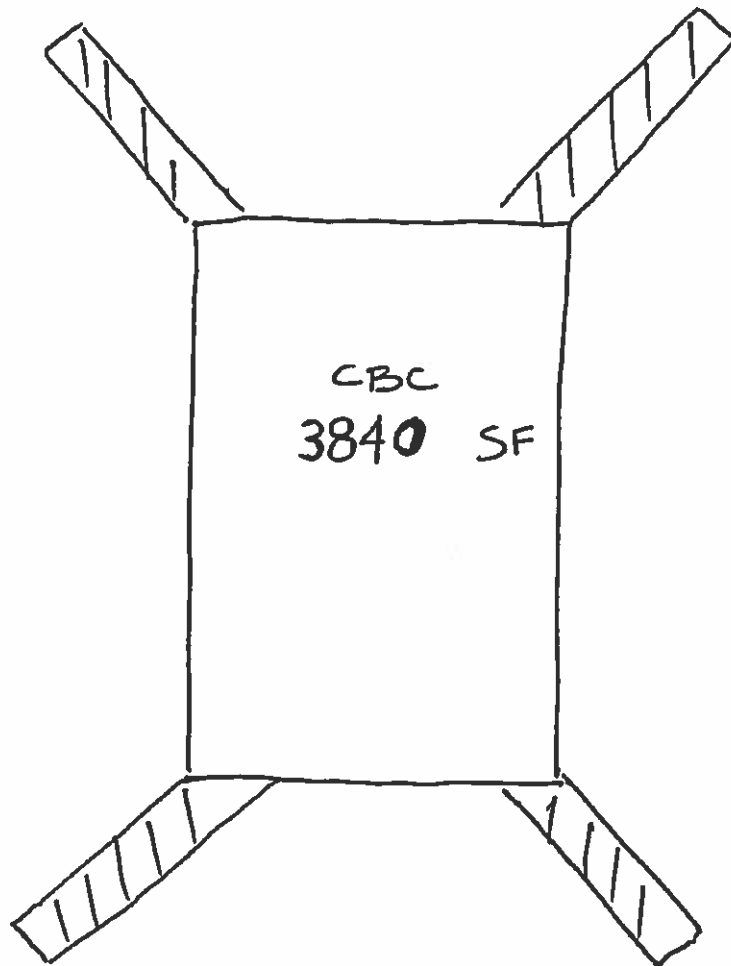
Date	Estimate #	2018-9
02/06/2018		

Name / Address
Engineering Associate Santa Fe County Public Works

Project				
Item	Description	Qty	Rate	Total
12	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,150.00	1,150.00
13	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,250.00	1,250.00
14	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,300.00	1,300.00
15	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,400.00	1,400.00
16	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,500.00	1,500.00
17	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,600.00	1,600.00
18	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,700.00	1,700.00
19	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,800.00	1,800.00
20	LABOR EQUIPMENT FUEL VIS QUEEN 6 MIL	1	1,900.00	1,900.00
Subtotal				11,800.00
Sales Tax (7.125%)				846.50
Total				12,646.50

Phone #	Fax #
505-873-0554	505-452-0844

AREA UNDER CBC & WingWALLS (2)



435.6 SF
WingWALLS

(3)

Areas		SF	SY	12" THICK	6" THICK
				CY of 6"	CY of 1 1/2"
Wingwalls	→	435.6	475.16	158.39	79.19
CBC	→	3840.8			
TOTAL	→	4276.4			
				Large Rock	Small Rock

TOTAL
COST Large Rock $\$26,657.82 \div 475 = \$56/\text{SY}$

TOTAL
COST Small Rock $\$16,687.28 \div 475 = \$35/\text{SY}$

206000-0040-14-6101130-5031021	800.000	45.800000	CMCK
206000-0060-14-4100821-5131480	222.000	60.000000	CCOL
206000-0060-14-6100850-0000077876	35.000	12.000000	CMCK
206000-0060-14-6101080-5100116	50.000	110.000000	CCIB
206000-0260-14-6100826-0000077876	250.000	30.000000	CMCK
206100-0050-14-E1000818283-5195840	169.000	55.000000	CCON

QUAN UNIT
COST

(4)

From NMDDOT 2017 BID CATALOG
20600 UNSUITABLE MTRL EXCAVATION

$$AVG = \$47^{70} / CY$$

602060-0080-14-E100140-5031021	61.000	59.750000	CDON
602060-0140-14-5100795-5031021	7.000	230.000000	CRIO
602060-0160-14-6100827-0000077876	45.000	80.000000	CCIB
602060-0180-14-4101210-5450920	200.000	60.000000	CSMG
602060-0210-14-4101220-5031021	268.000	61.950000	CCOL
602060-0230-14-6100826-0000077876	22.000	100.000000	CMCK
602060-0250-14-4100401R-0000079240	25.000	150.000000	CQUA
602060-0270-14-1100660-5071534	8.000	85.000000	CSOC
602060-0290-14-A301181-0000077876	22,140.000	25.000000	CBER
602060-0320-14-6100221-5141059	120.000	68.000000	CCIB
602060-0400-14-4100821-5131480	20.000	40.000000	CCOL
602060-0470-14-A300280-5141059	698.000	56.000000	CBER
602060-0500-14-E1000818283-5195840	68.000	100.000000	CDON
602060-1230-14-1100660-5071534	135.000	33.000000	CSOC
602060-2430-14-A300280-5141059	1,699.000	50.000000	CBER
	QUAN	UNIT COST	(5)

From NMDOT 2017 BID CATALOG
602060 CLASS "G" Rip Rap

$$\text{Avg} = \$ 55^{79} / \text{sy}$$

602010-0110-14-E100210R-5302509	80.000	140.000000	CDON
602010-0220-14-2101270-5001896	30.000	226.000000	CCUR
602010-0290-14-2100554-5071534	320.000	116.000000	COTE
602010-0300-14-4100381-0000077876	320.000	160.000000	CMOR
602010-0450-14-6100826-0000077876	370.000	120.000000	CMCK
602010-0510-14-2101771-0000079240	2,190.000	130.000000	CEDD
602010-0510-14-4100320-0000111156	20.000	110.000000	CSMG
602010-0590-14-A301233-5195840	1,240.000	76.000000	CSDV
602010-0650-14-1101250-0000082502	156.000	110.000000	CLUN
602010-1220-14-5100440-0000111156	145.000	80.000000	CRIO
602010-1510-14-4100821-5131480	153.000	100.000000	CCOL
602020-0600-14-A301233-5195840	490.000	130.000000	CSDV
602010-1220-14-5100440-0000111156	145.000	80.000000	CRIO
602010-1510-14-4100821-5131480	153.000	100.000000	CCOL
602020-0600-14-A301233-5195840	490.000	130.000000	CSDV
	QUAN	UNIT	
		COST	

(6)

From NMDOT 2017 BID CATALOG
602010 CLASS "B" RipRap

$$AVG = \$94^{00}/CY$$

$$\$31^{33}/SY$$

DEWATERING COST DATA

FC LLC

(7)

Change order proposal to move fire hydrant

Based on 2 weeks

PROJECT NAME: Pueblo of Laguna Waste Water Rehabilitation Project
PROJECT NO:
OWNER: Pueblo of Laguna

DATE: 10-Jan-18

DESCRIPTION OF WORK:	Jack and Bore under Rio San Jose near the lift station with 8-Inch HDPE, 60-ft steel casing. Price includes 10 hours of exploring time to confirm existence of concrete casing around pipe.
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SUBC N	L A B	M A T	E Q U I P	(PLACE "I" IN THE LABOR, MATER, EQUIP COLUMN)	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
LABOR									
-	1.0	-	-		Superintendent	80.00	HR	\$ 28.00	\$ 2,240.00
-	2.0	-	-		Operator	80.00	HR	\$ 17.55	\$ 2,808.00
-	2.0	-	-		Pipe Layer	80.00	HR	\$ 18.00	\$ 2,880.00
-	2.0	-	-		Laborer	80.00	HR	\$ 12.90	\$ 2,064.00
EQUIPMENT FUEL									
-	-	-	1.0		Loader Fuel (30 gal/day)	240.00	GL	\$ 2.35	\$ 564.00
-	-	-	1.0		Excavator Fuel (75 gal/day)	600.00	GL	\$ 2.35	\$ 1,410.00
-	-	-	1.0		Trench Roller Fuel (12 gal/day)	96.00	GL	\$ 2.35	\$ 225.60
-	-	-	1.0		Water Truck Fuel (35 gal/day)	280.00	GL	\$ 2.35	\$ 658.00
-	-	-	1.0		Trash Pump Fuel (6 gal/hr)	400.00	GL	\$ 2.35	\$ 940.00
-	-	-	1.0		Pickup Truck	70.00	GL	\$ 2.35	\$ 164.50
EQUIPMENT									
-	-	-	1.0		Loader	2.00	WK	\$ 2,060.00	\$ 4,120.00
-	-	-	1.0		Delivery and Pickup Charges Loader	2.00	EA	\$ 230.00	\$ 460.00
-	-	-	1.0		Environmental Service Charge for Loader	1.00	LS	\$ 53.56	\$ 53.56
-	-	-	1.0		Excavator	2.00	WK	\$ 4,547.00	\$ 9,094.00
-	-	-	1.0		Relocation Fee for Excavator	1.00	LS	\$ 2,000.00	\$ 2,000.00
-	-	-	1.0		Delivery & Pick up Charges for Excavator	1.00	LS	\$ 607.00	\$ 607.00
-	-	-	1.0		Environmental Service Charge for Excavator	1.00	LS	\$ 75.00	\$ 75.00
-	-	-	1.0		Trench Roller	2.00	WK	\$ 918.00	\$ 1,836.00
-	-	-	1.0		Toilet	2.00	WK	\$ 25.00	\$ 50.00
-	-	-	1.0		Water Truck	2.00	WK	\$ 1,225.00	\$ 2,450.00
-	-	-	1.0		Pickup Truck	80.00	HR	\$ 15.00	\$ 1,200.00
-	-	-	2.0		Trash Pumps	2.00	WK	\$ 880.00	\$ 1,620.00
-	-	-	2.0		4-Inch Suction Hose	2.00	WK	\$ 47.00	\$ 184.00
-	-	-	2.0		Delivery & Pickup Charges	1.00	EA	\$ 115.00	\$ 230.00
-	-	-	2.0		Trench Boxes (8x20)	2.00	WK	\$ 400.00	\$ 1,600.00
-	-	-	1.0		Trench Box (4x20)	2.00	WK	\$ 200.00	\$ 400.00
-	-	-	2.0		Manhole Boxes (8x8x8)	2.00	WK	\$ 600.00	\$ 2,400.00
-	-	-	1.0		Manhole Box (4x8x8)	2.00	WK	\$ 150.00	\$ 300.00
-	-	-	3.0		Trench Shoring Delivery & Pick up Charges (3 Trucks @ \$75/hr)	6.00	HR	\$ 75.00	\$ 1,350.00
MATERIALS, SUBCONTRACTORS AND OTHERS									
-	-	1.0	-		HDPE Pipe	257.84	LF	\$ 6.67	\$ 1,719.79
1.0	-	-	-		DH Underground	1.00	LS	\$ 10,800.00	\$ 10,800.00
-	-	1.0	-		Gravel	100.00	TN	\$ 32.50	\$ 3,250.00
1.0	-	-	-		Coating additional 6 VF + Mobilization by Bogan Brothers	1.00	LS	\$ 740.00	\$ 740.00
-	-	-	1.0		Post Construction CCTV	257.84	LF	\$ 2.20	\$ 567.25
-	-	1.0	-		Manhole more than 10 VF	1.00	EA	\$ 4,400.00	\$ 4,400.00
-	-	1.0	-		Concrete for MH Collar (Short Load, Delivered to Laguna)	1.00	LS	\$ 738.15	\$ 738.15
-	-	1.0	-		Material Testing	1.00	LS	\$ 500.00	\$ 500.00
-	-	1.0	-		Construction Water	24,000.00	GL	\$ 0.02	\$ 480.00
-	-	-	-						\$ -
-	-	-	-						\$ -
-	-	-	-						\$ -
-	-	-	-						\$ -
-	-	-	-						\$ -
-	-	-	-						\$ -

2 PUMPS

DIRECT COSTS	TOTAL SUBCONTRACTOR	\$11,540.00
	TOTAL LABOR	\$9,992.00
	TOTAL EQUIPMENT	\$34,438.91
	TOTAL MATERIAL	\$11,087.94

\$12,208 ÷ 10 days = \$1220/day

\$6140 X 2 = \$12,280

(8)

Bohannon Huston

Courtyard I
7500 Jefferson St. NE
Albuquerque, NM
87109-4335

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toll free: 800.877.5332

February 27, 2018

Shannon Vigil, PE
Santa Fe County Public Works Department
PO Box 276
Santa Fe, NM 87504

Re: Los Pinos Rd (CR 54) Construction Issue Regarding Dewatering and Stabilization Under the Concrete Box Culvert (CBC)

Dear Shannon:

Recently, HO Construction submitted a Cost Proposal for stabilization of the subgrade under the CBC and wing walls for the Los Pinos Rd (CR 54) project. This stabilization includes dewatering the channel and replacing 18 inches of the subgrade under the box with clean gravel. The County has requested an explanation for why these items were not in the original construction drawings.

In November 2013, the geotechnical investigation performed by Geotest, Inc. for the project included three soil borings in the roadway to a depth of 6-10 feet. The geotechnical report showed that groundwater was encountered in the deepest boring at 9 feet. The report also showed the existing soils were considered suitable to support the box culvert. It was recommended the proposed structure be supported directly on densified native soils or on properly compacted structural fill. Based on the report, the native soils would be suitable for supporting the CBC. However, after excavation it was found the groundwater is flowing continuously such that the contractor is unable to dewater enough to compact the existing soil. This is an unknown condition that was unable to be predicted prior to construction. The contractor is proposing the clean gravel because it requires minimal compaction, and the ground water can flow through it similar to a French drain.

The original design of the project included pre-cast concrete box culverts in order to minimize closure of the roadway for construction. The NMDOT specification 511-F – Precast Concrete Box Culvert was included in the contract documents prepared by the County. This specification includes, "Equipment, materials, permits, and manpower for de-watering, shoring or rock excavation; and Bedding (Section 304) including installation and compaction." The original design overbid the County's budget, and the County asked BHI to redesign the CBC to be cast-in-place; when this was completed, this specification was taken out of the contract documents. When the specification was removed by the County, it should have been replaced by BHI with a bid item for Section 210 – Excavation and Backfill for Major Structures which would have accounted for similar construction methods.

If you have any questions, please feel free to contact me at (505) 823-1000.

Sincerely,



Jeanette A. Walther, PE
Senior Project Manager
Traffic & Transportation

JAW/le

cc: Matthew Santistevan, BHI
Kevin Murtagh, BHI

Engineering ▲

Spatial Data ▲

Advanced Technologies ▲