


# SAM Engineering and Surveying



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Engineering Firm Reg # 10602      Surveying Firm Reg # 101416-00  
200 S. 10<sup>th</sup> Street, Suite 1500, McAllen, Texas 78501 Phone: (956) 702-8880 Fax: (956) 702-8883

Owner: Hidalgo County Precinct-1  
To: Commissioner David Fuentes  
Cc: Jorge Peña, RPIC  
Mayor David Suarez  
From: Samuel D. Maldonado, P.E., R.P.L.S.   
Date: 1/25/22  
Re: Change Order # 4 Approval

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Project: Mile 6 W Road Project  
Contract: C-19-274-04-07  
CSJ: 0921-02-420  
HWY: Mile 6 W

Change Order #4 has been approved to make the following changes:

Description & Purpose:

Change order #4 allows for changes to the construction based on an existing manhole structure not found in the construction plans. The manhole was discovered within the proposed new pavement on the west side of Mile 6 W southbound lane at STA 61+00. The manhole was determined to be abandoned and not claimed by any entity. (SAMES obtained written confirmation from HCDD#1, HCCID#9 and City of Weslaco). SAMES reached out to the design engineer for recommendations on how to proceed with the manhole in question. The design engineer recommended the manhole be backfilled with flowable backfill to ensure structural integrity. SAMES forwarded the details provided by the design engineer to Texas Cordia Construction and were given a directive to provide a proposal for the work. Texas Cordia provided a proposal for the work, which was reviewed and sent via email to TxDOT for concurrence. TxDOT did not concur with the pricing. Re-negotiations with the contractor were unfruitful due to various unknowns revolving the unclaimed manhole. SAMES and Precinct 1 opted to proceed via Force Account Method.

Change Order #4 was provided by Texas Cordia Construction and signed by SAMES, Inc. and Precinct-1. There is additional funding estimated in the quantity of \$2,662.30. However, due to the nature of the Force Account Method the final cost will not be known until this work is completed. This Changer Order also adds 43 working days to the contract time due to direct impacts to the construction progress. The County has been notified of Change Order #4 and agrees with CO#4. The changes do not impact the original environmental assessment, do not impact TDLR elements, do not impact wetlands, or water of the US, archeological, historical, or social issues, endangered species or any other regulated areas within the project will not see change. This change order does not cause a disturbance that would require a Construction Site Notice (CSN) or Notice of Intent (NOI).

SAMES has reviewed the change order with Precinct-1 to explain this item and payment according to governing Local Government Specifications 1L-9L. See attached for supporting documentation used to describe all item and quantity changes.

S:\SAMESINC\ENG\ENG 2019\Eng 19.027 Mile 6 W Road project\7.0 CONSTRUCTION INSPECTION\7.06 CHANGE CONTROL\D. CHANGE ORDER REQUEST\Change Order #4\C04

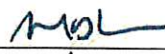



**CHANGE ORDER No. 4**

PROJECT NAME	Mile 6 W (From Mile 9 N to Mile 11 N)		
LOCATION OF WORK	Mile 6 W (STA 61+00)		
CONTRACT NO.	CSJ:0921-02-420	CHANGE ORDER NO.	4
REQUESTING PARTY	Contractor	DATE OF REQUEST	1/18/22
PROJECT MANAGER	Clayton Kindel	CONTRACTOR	Texas Cordia Construction, LCC
OWNER	HC PCT-1	ENGINEER	SAMES INC.

PROJECT CHANGE REQUEST DESCRIPTION	
DESCRIPTION OF CHANGES NEEDED	1. An existing manhole was not found in the construction plans. Located on the west side of Mile 6 W at STA 61+00. Said manhole was determined to be unclaimed by different utility entities. The design engineer recommended the manhole be backfilled with flowable backfill to ensure structural integrity of the structure. Total Changes Cost = \$2,662.30 (approximately).
REASON FOR	1. To ensure structural integrity of the manhole structure to support the vertical load of the asphalt pavement and the imposed traffic loadings.

CHANGE IN PRICE		CHANGE IN TIMES	
ORIGINAL PRICE	\$12,069,056.81	ORIGINAL TIMES	378 days
NET CHANGES OF PREVIOUS CHANGE ORDERS	(+) \$17,495.92	NET CHANGES OF PREVIOUS CHANGE ORDERS IN DAYS	23 days
NET INCREASE / DECREASE	(+) \$2,662.30	NET INCREASE / DECREASE	43 days
TOTAL CONTRACT PRICE WITH APPROVED CHANGES	\$12,089,215.03	TOTAL CONTRACT TIME WITH APPROVED CHANGES	444 days

RECOMMENDED BY ENGINEER		APPROVED BY OWNER	
DATE	1/25/22	DATE	
ACCEPTED BY CONTRACTOR		REVIEWED BY FUNDER	
DATE	1/25/22	DATE	

## Even Gonzalez

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**From:** Jesus Garcia <Jesus.Garcia9@txdot.gov>  
**Sent:** Tuesday, January 4, 2022 11:59 AM  
**To:** Ricardo Leal; Even Gonzalez  
**Cc:** Jesus Noriega; Felipe Fernandez; Sofia Reynolds; Samuel D. Maldonado; Mile 6 W; 🇲🇽  
Jorge Pena 🇲🇽; Luis Diaz  
**Subject:** RE: 0921-02-420 RE: Proposal for CO#4 - RFI #28  
**Attachments:** Mile 6 W - Proposal - RFI #28 - MH Flowable Backfill.pdf

Good Morning Ricardo,

Thank you for your wishes. I hope you and your family are doing well. After review, the proposal for this work is significantly higher than the TxDOT Statewide Average Low Bid Item (TCC Proposal \$ 266.23/ CY vs. TxDOT Average Low Bid \$ 156.82/CY). TxDOT does not approve for the attached proposal and recommends re-negotiation. Please feel free to contact me for any questions.

Thank You,

**Jesus I. Garcia, P.E.**  
Transportation Engineer  
521 W. Ferguson  
Pharr, Texas 78577



O: 956-702-6360 | E: Jesus.Garcia9@txdot.gov  
[www.txdot.gov](http://www.txdot.gov) | [Texas Highways Magazine](#) | [Get Involved](#)

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**From:** Ricardo Leal <ricardo@samengineering-surveying.com>  
**Sent:** Tuesday, January 4, 2022 9:38 AM  
**To:** Jesus Garcia <Jesus.Garcia9@txdot.gov>; Even Gonzalez <even@samengineering-surveying.com>  
**Cc:** Jesus Noriega <Jesus.Noriega@txdot.gov>; Felipe Fernandez <Felipe.Fernandez@txdot.gov>; Sofia Reynolds <sreynolds@samengineering-surveying.com>; Samuel D. Maldonado <sam@samengineering-surveying.com>; Mile 6 W <224160b9-403f-432a-b0ff-fd55fbc82b7@projects.owner-insite.com>; 🇲🇽 Jorge Pena 🇲🇽 <jorge.pena1@co.hidalgo.tx.us>; Luis Diaz <luis.diaz@co.hidalgo.tx.us>  
**Subject:** CSJ: 0921-02-420 RE: Proposal for CO#4 - RFI #28

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning Mr. Garcia,

Hope you had a great holiday season!

If you recall, a manhole was found in the field and not identified in the plans. Furthermore, no utility entity associated with the project has claimed this MH (NAWSC, City of Weslaco, HCCID#9, HCDD#1) . We obtained a proposal from TCC for flowable backfill, attached herein.

Please let us know if anything else is needed.

**To:** Jesus Garcia <[Jesus.Garcia9@txdot.gov](mailto:Jesus.Garcia9@txdot.gov)>  
**Cc:** Jesus Noriega <[Jesus.Noriega@txdot.gov](mailto:Jesus.Noriega@txdot.gov)>; Felipe Fernandez <[Felipe.Fernandez@txdot.gov](mailto:Felipe.Fernandez@txdot.gov)>; Ricardo Leal <[ricardo@samengineering-surveying.com](mailto:ricardo@samengineering-surveying.com)>; Sofia Reynolds <[sreynolds@samengineering-surveying.com](mailto:sreynolds@samengineering-surveying.com)>  
**Subject:** RE: Proposal for CO#4

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Mr. Jesus, thank you for the quick response.

There is water present and it's too deep to establish flow direction or overall purpose of manhole.

**Even E. Gonzalez, E.I.T**  
Field Engineer



200 S. 10th Street, Ste. 1500  
McAllen, Texas 78501  
956.702.8880 office  
<https://samesincweb.com>

Texas Registered Engineering Firm # 10602  
Texas Registered Surveying Firm # 101416-00  
Texas Registered Architectural Firm # BR 4166



**Advantage!**<sup>SM</sup>



**"EXCELLENCE THRU TEAMWORK"**

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**From:** Jesus Garcia <[Jesus.Garcia9@txdot.gov](mailto:Jesus.Garcia9@txdot.gov)>  
**Sent:** Tuesday, December 14, 2021 3:12 PM  
**To:** Even Gonzalez <[even@samengineering-surveying.com](mailto:even@samengineering-surveying.com)>  
**Cc:** Jesus Noriega <[Jesus.Noriega@txdot.gov](mailto:Jesus.Noriega@txdot.gov)>; Felipe Fernandez <[Felipe.Fernandez@txdot.gov](mailto:Felipe.Fernandez@txdot.gov)>; Ricardo Leal <[ricardo@samengineering-surveying.com](mailto:ricardo@samengineering-surveying.com)>; Sofia Reynolds <[sreynolds@samengineering-surveying.com](mailto:sreynolds@samengineering-surveying.com)>  
**Subject:** RE: Proposal for CO#4

Good Afternoon Even,

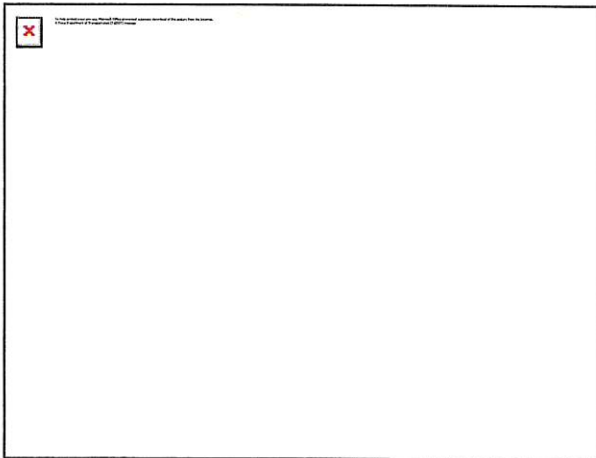
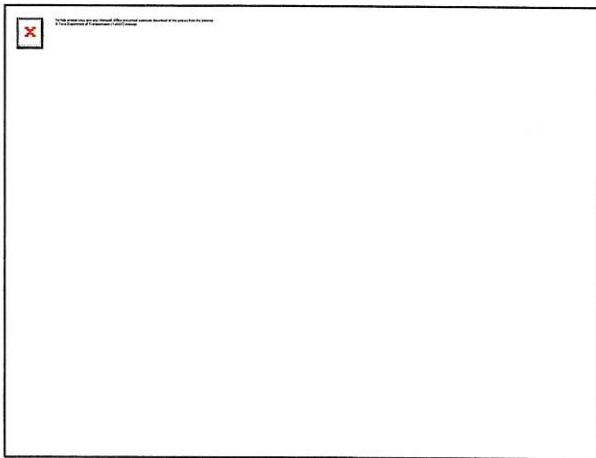
If the manhole was determined to be abandoned, why is removing it not an option? Please advise.

Texas Registered Engineering Firm # 10602  
Texas Registered Surveying Firm # 101416-00  
Texas Registered Architectural Firm # BR 4166



**"EXCELLENCE THRU TEAMWORK"**

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CHANGE ORDER COVER SHEET

PROJECT 1090  
 COUNTY: Hidalgo  
 C.O. NO: 0004  
 TCC NO: 0

CSJ: 0921-02-420  
 HWY: Mile 6  
 DATED: 12/23/21

**CONTRACT AMOUNT INFORMATION**

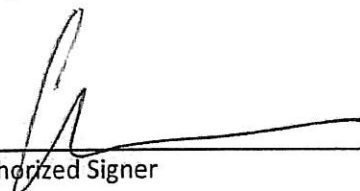
Original Contract Amount: \$ 12,069,056.81  
 Current Contract Amount: \$ 12,086,552.73  
 Change Order Amount: \$ 2,662.30  
 New Contract Amount: \$ 12,089,215.03

**CHANGE ORDER LIST**

Item No	Description	Quantity	Unit	Price	Amount
401-6001	Flowable Backfill	10.00	CY	\$ 266.23	\$ 2,662.30
				\$ -	\$ -
				\$ -	\$ -
				\$ -	\$ -

**TOTAL CHANGE ORDER \$ 2,662.30**

I hereby certify that the above is a true and correct statement of the amounts payable to **Texas Cordia Construction, LLC**, which are just charges as contingency expenditures incurred on this project.

  
 \_\_\_\_\_  
 Authorized Signer

12/23/2021  
 \_\_\_\_\_  
 Date

THE PRICES QUOTED FOR THE REFERENCED PROJECT ARE VALID FOR A PERIOD OF THIRTY (30) DAYS.



CHANGE ORDER SUBMITTAL

PROJECT 1090  
 COUNTY: Hidalgo  
 C.O. NO: 004  
 TCC NO: 0

CSJ: 0921-02-420  
 HWY: Mile 6  
 DATED: 12/23/21  
 QUANTITY: 10.00 CY

**CHANGE ORDER DESCRIPTION**

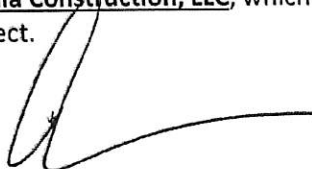
Cap Unclaimed Manhole @ Sta 61+00

**CHANGE ORDER TOTALS**

LABOR	\$	491.12	+	25% compensation	\$	122.78	
			+	55% premium	\$	270.12	
				TOTAL LABOR	\$	884.02	
EQUIPMENT	\$	326.26	+	15% compensation	\$	48.94	
				TOTAL EQUIPMENT	\$	375.20	
MATERIAL	\$	1,030.00	+	25% compensation	\$	257.50	
				TOTAL MATERIAL	\$	1,287.50	
SUBCONTRACT	\$	85.00	+	5% administrative	\$	4.25	
				TOTAL SUBCONTRACT	\$	89.25	
BOND				1% of sub total	\$	26.36	
TOTAL					\$	2,662.32	

UNIT PRICE 266.23 /CY  
 TOTAL PAYMENT \$ 2,662.32

I hereby certify that the above is a true and correct statement of the amounts payable to Texas Cordia Construction, LLC, which are just charges as contingency expenditures incurred on this project.

  
 \_\_\_\_\_  
 Authorized Signer

12/23/2021  
 \_\_\_\_\_  
 Date

THE PRICES QUOTED FOR THE REFERENCED PROJECT ARE VALID FOR A PERIOD OF THIRTY (30) DAYS.

CONTROL NO: 0921-02-420  
 PROJECT NAME: Mile 6  
 TCC NO: 0  
 C.O. NO: 004  
 DATE: 12/23/21



CHANGE ORDER DESCRIPTION

Backfill the Unclaimed Manhole @ Sta 61+00

Labor	Pieces	HR	Rate	Base Total	Taxes/Insur 55%	Markup 25%	Total Cost
Foreman (Hourly)	1	8	\$ 40.00	\$ 320.00	\$ 176.00	\$ 80.00	\$ 576.00
Utility Labor	1	8	\$ 11.53	\$ 92.24	\$ 50.73	\$ 23.06	\$ 166.03
Common Laborer	1	8	\$ 9.86	\$ 78.88	\$ 43.38	\$ 19.72	\$ 141.98
				\$ 491.12	\$ 270.12	\$ 122.78	\$ 884.02

Equipment	Pieces	HR	Rate	Base Total	Markup 15%	Total Cost
Concrete Saw	1	4	\$ 3.29	\$ 13.16	\$ 1.97	\$ 15.13
Water Pump	1	2	\$ 8.39	\$ 16.78	\$ 2.52	\$ 19.30
Truck	1	8	\$ 37.04	\$ 296.32	\$ 44.45	\$ 340.77
				\$ 326.26	\$ 48.94	\$ 375.20

Materials / Other	Unit	Quantity	Unit Price	Material Cost	Markup 25%	Total Cost
Flowable Backfill	CY	10.00	\$ 103.00	\$ 1,030.00	\$ 257.50	\$ 1,287.50
				\$ -	\$ -	\$ -
				\$ 1,030.00	\$ 257.50	\$ 1,287.50

Subcontractor	Unit	Quantity	Unit Price	Sub Cost	Markup 5%	Total Cost
Disposal Fee	LD	1	\$ 85.00	\$ 85.00	\$ 4.25	\$ 89.25
	EA	0	\$ -	\$ -	\$ -	\$ -
				\$ 85.00	\$ 4.25	\$ 89.25

Subtotal \$ 2,635.97  
 1% Bond Cost \$ 26.36  
 Total \$ 2,662.30

**Rental Rate Blue Book®**
**Miscellaneous 5-14SM**  
 Concrete Saws

 Size Class:  
 To 10 HP  
 Weight:  
 N/A

**Configuration for 5-14SM**

Horsepower	<b>5.5</b>	Maximum Cutting Depth	<b>5.0 in</b>
Power Mode	Gasoline	Type	Stone & Masonry

**Blue Book Rates**

\*\* FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs Hourly USD \$2.09	FHWA Rate** Hourly USD \$3.40
	Monthly	Weekly	Daily	Hourly		
Published Rates	USD \$230.00	USD \$64.00	USD \$16.00	USD \$2.00		
Adjustments						
Region ( Texas: 92.2%)	(USD \$17.94)	(USD \$4.99)	(USD \$1.25)	(USD \$0.16)		
Model Year (2021: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					USD \$2.09	USD \$3.29
<b>Total:</b>	<b>USD \$212.06</b>	<b>USD \$59.01</b>	<b>USD \$14.75</b>	<b>USD \$1.84</b>		

**Non-Active Use Rates**

	Hourly
Standby Rate	USD \$0.60
Idling Rate	USD \$2.48

**Rate Element Allocation**

Element	Percentage	Value
Depreciation (ownership)	44%	USD \$101.20/mo
Overhaul (ownership)	46%	USD \$105.80/mo
CFC (ownership)	1%	USD \$2.30/mo
Indirect (ownership)	9%	USD \$20.70/mo
Fuel (operating) @ USD 2.97	61%	USD \$1.28/hr

Revised Date: 3rd quarter 2021.

These are the most accurate rates for the selected Revision Date(s). However, due to more frequent online updates, these rates may not match Rental Rate Blue Book Print. Visit the Cost Recovery Product Guide on our Help page for more information.

 The equipment represented in this report has been exclusively prepared for YARA CORBITT  
 (yara@texascordia.com)

**Rental Rate Blue Book®**
**Average AVERAGE 2 INCH**  
 Diaphragm Pumps

 Size Class:  
 2 Inch  
 Weight:  
 N/A

**Configuration for AVERAGE 2 INCH**

Horsepower	4.0 hp	Power Mode	Diesel
Pump Capacity	2800.0 gal/min	Size	2.0 in

**Blue Book Rates**

\*\* FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs Hourly USD \$4.18	FHWA Rate** Hourly USD \$9.01
	Monthly	Weekly	Daily	Hourly		
Published Rates	USD \$850.00	USD \$240.00	USD \$60.00	USD \$9.00		
Adjustments						
Region ( Texas: 87.1%)	(USD \$109.65)	(USD \$30.96)	(USD \$7.74)	(USD \$1.16)		
Model Year (2021: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					USD \$4.18	USD \$8.39
<b>Total:</b>	<b>USD \$740.35</b>	<b>USD \$209.04</b>	<b>USD \$52.26</b>	<b>USD \$7.84</b>		

**Non-Active Use Rates**

	Hourly
Standby Rate	USD \$2.10
Idling Rate	USD \$4.73

**Rate Element Allocation**

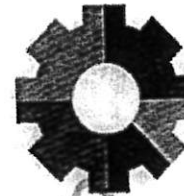
Element	Percentage	Value
Depreciation (ownership)	16%	USD \$136.00/mo
Overhaul (ownership)	77%	USD \$654.50/mo
CFC (ownership)	1%	USD \$8.50/mo
Indirect (ownership)	6%	USD \$51.00/mo
Fuel (operating) @ USD 3.27	12%	USD \$0.52/hr

Revised Date: 3rd quarter 2021.

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 (yara@texascordia.com)

**Rental Rate Blue Book®**
**Miscellaneous 4X4 3/4 410 CONV GAS**  
 On-Highway Light Duty Trucks

 Size Class:  
 300 HP & Over  
 Weight:  
 N/A

**Configuration for 4X4 3/4 410 CONV GAS**

Axle Configuration	4X4	Cab Type	Conventional
Horsepower	410 hp	Power Mode	Gasoline
Ton Rating	3/4		

**Blue Book Rates**

\*\* FHWA Rate is equal to the monthly ownership cost divided by 176 plus the hourly estimated operating cost.

	Ownership Costs				Estimated Operating Costs Hourly	FHWA Rate** Hourly
	Monthly	Weekly	Daily	Hourly		
Published Rates	USD \$1,140.00	USD \$320.00	USD \$80.00	USD \$12.00	USD \$30.82	USD \$37.30
Adjustments						
Region (Texas: 96.1%)	(USD \$44.46)	(USD \$12.48)	(USD \$3.12)	(USD \$0.47)		
Model Year (2021: 100%)	-	-	-	-		
Adjusted Hourly Ownership Cost (100%)	-	-	-	-		
Hourly Operating Cost (100%)					USD \$30.82	USD \$37.04
<b>Total:</b>	<b>USD \$1,095.54</b>	<b>USD \$307.52</b>	<b>USD \$76.88</b>	<b>USD \$11.53</b>		

**Non-Active Use Rates**

	Hourly
Standby Rate	USD \$3.11
Idling Rate	USD \$31.58

**Rate Element Allocation**

Element	Percentage	Value
Depreciation (ownership)	57%	USD \$649.80/mo
Overhaul (ownership)	29%	USD \$330.60/mo
CFC (ownership)	2%	USD \$22.80/mo
Indirect (ownership)	12%	USD \$136.80/mo
Fuel (operating) @ USD 3.25	82%	USD \$25.36/hr

Revised Date: 4th quarter 2021

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 (yara@texascordia.com)

# Item 401

## Flowable Backfill



### 1. DESCRIPTION

Furnish and place flowable backfill for trench, hole, or other void.

### 2. MATERIALS

Use materials from prequalified sources listed on the Department website. Use materials from non-listed sources only when tested and approved before use. Allow 30 calendar days for the Engineer to sample, test, and report results for non-listed sources. Do not combine approved material with unapproved material.

2.1. **Cement.** Furnish cement in accordance with DMS-4600, "Hydraulic Cement."

2.2. **Fly Ash.** Furnish fly ash in accordance with DMS-4610, "Fly Ash."

2.3. **Chemical Admixtures.** Furnish chemical admixtures in accordance with DMS-4640, "Chemical Admixtures for Concrete." Use specialty type admixtures to enhance the flowability, reduce shrinkage, and reduce segregation by maintaining solids in suspension when necessary. Use and proportion all admixtures in accordance with the manufacturer's recommendations.

2.4. **Fine Aggregate.** Provide fine aggregate that will stay in suspension in the mortar to the extent required for proper flow and that meets the gradation requirements of Table 1.

Table 1  
Aggregate Gradation Chart

Sieve Size	Percent Passing
3/4"	100
#200	0-30

Test fine aggregate gradation in accordance with Tex-401-A.

Plasticity Index (PI) must not exceed 6 when tested in accordance with Tex-106-E.

2.5. **Mixing Water.** Use mixing water in accordance with Item 421, "Hydraulic Cement Concrete."

### 3. CONSTRUCTION

Submit a construction method and plan, including mix design, for approval. Provide a means of filling the entire void area, and be able to demonstrate this has been accomplished. Prevent the movement of any inserted structure from its designated location. Remove and replace or correct the problem if voids are found in the fill or any of the requirements are not met as shown on the plans without additional cost to the Department.

Furnish a mix meeting the requirements of Table 2 unless otherwise shown on the plans.

**Table 2**  
**Flowable Fill Mix Design Requirements**

<b>Property</b>	<b>Excavatable</b>	<b>Non-Excavatable</b>	<b>Test Method</b>
28-day Compressive Strength, <sup>1</sup> psi	80 to 200	> 200	ASTM D4832
Consistency, <sup>2</sup> Min diameter, in.		8	ASTM D6103
Unit Weight, pcf	90 to 125	100 to 145	ASTM D6023
Air Content, %	10 to 30	5 to 15	ASTM D6023

1. Average of 2 specimens.
2. Mixture must not segregate.

Mix the flowable fill using a central-mixed concrete plant, ready-mix concrete truck, pug mill, or other approved method.

Furnish all labor, equipment, tools, containers, and molds required for sampling, making, transporting, curing, removal, and disposal of test specimens. Furnish test molds meeting the requirements of Tex-447-A. Transport, strip, and cure the test specimens as scheduled at the designated location. Cure test specimens in accordance with Tex-447-A. The Engineer will sample, make, and test all specimens. Dispose of used, broken specimens in an approved location and manner. The frequency of job-control testing will be at the direction of the Engineer.

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#### **4. MEASUREMENT**

This Item will be measured by the cubic yard of material placed. Measurement will not include additional volume caused by slips, slides, or cave-ins resulting from the Contractor's operations.

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#### **5. PAYMENT**

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Flowable Backfill." This price is full compensation for furnishing, hauling, and placing materials and for equipment, tools, labor, and incidentals.