

# WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 5

1. CONTRACTOR: James Construction Group
2. Change Order Work Limits: Sta. 11+91.00 to Sta. 111+98.00
3. Type of Change(on federal-aid non-exempt projects): Minor (Major/Minor)
4. Reasons: 5E (3 Max. - In order of importance - Primary first)

Project: 22IFB139

Roadway: FM 3349

CSJ Number: Williamson Co

5. Describe the work being revised:

**5. Contractor Convenience. 5E Other:** This Change Order is to revise the Stone Riprap material cost due to a material substitution request from the contractor. James Construction proposed material that has a specific gravity below the Contract requirements but has been accepted by TxDOT in other projects. The EOR approved the use of this material and recommended a reduction in price. This Change Order will result in a cost savings for the proposed material. This Change Order also adds new items to the Contract to pay the Contractor for additional work that was originally paid under the Force Account Line item.

6. Work to be performed in accordance with Items: See Attached
7. New or revised plan sheet(s) are attached and numbered: 28, 376, 566, 557, 633, 784
8. New Special Provisions/Specifications to the contract are attached: ☐ Yes ☒ No
9. New Special Provisions to Item N/A No. N/A, Special Specification Item N/A are attached.

Each signatory hereby warrants that each has the authority to execute this Change Order (CO).

<p><i>The contractor must sign the Change Order and, by doing so, agrees to waive any and all claims for additional compensation due to any and all other expenses, additional changes for time, overhead and profit, or loss of compensation as a result of this change.</i></p> <p>THE CONTRACTOR Date <u>8-30-23</u></p> <p>By <u>[Signature]</u></p> <p>Typed/Printed Name <u>Joel Williams</u></p> <p>Typed/Printed Title <u>Division Manager</u></p>	<p><b>The following information must be provided</b></p> <p>Time Ext. #: _____ Days added on this CO: _____</p> <p>Amount added by this change order: <u>(\$5,274.97)</u></p>
--	---

RECOMMENDED FOR EXECUTION:

[Signature] 8/30/2023  
Project Manager Date

N/A  
Design Engineer Date

[Signature] 9/1/2023  
Program Manager Date

County Commissioner Precinct 1 Date  
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 2 Date  
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 3 Date  
☐ APPROVED ☐ REQUEST APPROVAL

County Commissioner Precinct 4 Date  
☐ APPROVED ☐ REQUEST APPROVAL

Design Engineer's Seal

County Judge Date  
☐ APPROVED

# WILLIAMSON COUNTY, TEXAS

CHANGE ORDER NUMBER: 5

Project # 22IFB139

TABLE A: Force Account Work and Materials Placed into Stock

	LABOR	HOURLY RATE		HOURLY RATE

TABLE B: Contract Items:

ITEM	DESCRIPTION	UNIT	UNIT PRICE	ORIGINAL + PREVIOUSLY REVISED		ADD or (DEDUCT)	NEW		OVERRUN/ UNDERRUN
				QUANTITY	ITEM COST	QUANTITY	QUANTITY	ITEM COST	
432-6031	RIPRAP (STONE PROTECTION) (12 IN) (3486-01-008)	CY	\$102.89	1,289.00	\$132,625.21	(1,289.00)	0.00	\$0.00	(\$132,625.21)
432-6033	RIPRAP (STONE PROTECTION) (18 IN) (3486-01-008)	CY	\$101.70	1,805.00	\$183,568.50	(1,805.00)	0.00	\$0.00	(\$183,568.50)
432-6035	RIPRAP (STONE PROTECTION) (24 IN) (3486-01-008)	CY	\$84.94	8,503.00	\$722,244.82	(8,503.00)	0.00	\$0.00	(\$722,244.82)
432-6031	RIPRAP (STONE PROTECTION) (12 IN) (3486-01-008)	CY	\$92.02	0.00	\$0.00	1,289.00	1,289.00	\$118,611.56	\$118,611.56
432-6033	RIPRAP (STONE PROTECTION) (18 IN) (3486-01-008)	CY	\$93.94	0.00	\$0.00	1,805.00	1,805.00	\$169,561.70	\$169,561.70
432-6035	RIPRAP (STONE PROTECTION) (24 IN) (3486-01-008)	CY	\$83.29	0.00	\$0.00	8,503.00	8,503.00	\$708,214.87	\$708,214.87
999-WC06	CRASH CUSHION REPAIR AND CTB MOVE (0204-02-034)	LS	\$27,458.92	0.00	\$0.00	1.00	1.00	\$27,458.92	\$27,458.92
999-WC07	FORCE ACCOUNT - LAW ENFORCEMENT (0204-02-034)	DOL	\$1.00	0.00	\$0.00	9,316.51	9,316.51	\$9,316.51	\$9,316.51
TOTALS					\$1,038,438.53			\$1,033,163.56	(\$5,274.97)

## CHANGE ORDER REASON(S) CODE CHART

1. Design Error or Omission	1A. Incorrect PS&E 1B. Other
2. Differing Site Conditions (unforeseeable)	2A. Dispute resolution (expense caused by conditions and/or resulting delay) 2B. Unavailable material 2C. New development (conditions changing after PS&E completed) 2D. Environmental remediation 2E. Miscellaneous difference in site conditions (unforeseeable)(Item 9) 2F. Site conditions altered by an act of nature 2G. Unadjusted utility (unforeseeable) 2H. Unacquired Right-of-Way (unforeseeable) 2I. Additional safety needs (unforeseeable) 2J. Other
3. County Convenience	3A. Dispute resolution (not resulting from error in plans or differing site conditions) 3B. Public relations improvement 3C. Implementation of a Value Engineering finding 3D. Achievement of an early project completion 3E. Reduction of future maintenance 3F. Additional work desired by the County 3G. Compliance requirements of new laws and/or policies 3H. Cost savings opportunity discovered during construction 3I. Implementation of improved technology or better process 3J. Price adjustment on finished work (price reduced in exchange for acceptance) 3K. Addition of stock account or material supplied by state provision 3L. Revising safety work/measures desired by the County 3M. Other
4. Third Party Accommodation	4A. Failure of a third party to meet commitment 4B. Third party requested work 4C. Compliance requirements of new laws and/or policies (impacting third party) 4D. Other
5. Contractor Convenience	5A. Contractor exercises option to change the traffic control plan 5B. Contractor requested change in the sequence and/or method of work 5C. Payment for Partnering workshop 5D. Additional safety work/measures desired by the contractor 5E. Other
6. Untimely ROW/Utilities	6A. Right-of-Way not clear (third party responsibility for ROW) 6B. Right-of-Way not clear (County responsibility for ROW) 6C. Utilities not clear 6D. Other

**Williamson County Road Bond Program**

**FM3349 at US 79  
Williamson County Project No. 22IFB139**

**Change Order No. 5**

**Reason for Change**

This Change Order is to revise the Stone Riprap material cost due to a material substitution request from the contractor. James Construction proposed material that has a specific gravity below the Contract requirements but has been accepted by TxDOT in other projects. The EOR approved the use of this material and recommended a reduction in price. This Change Order will result in a cost savings for the proposed material. This Change Order also adds new items to the Contract to pay the Contractor for additional work that was originally paid under the Force Account Line item.

Following is a summary of new items required for this Change Order.

ITEM	DESCRIPTION	QTY	UNIT
999-WC06	CRASH CUSHION REPAIR AND CTB MOVE (0204-02-034)	1	LS
999-WC07	FORCE ACCOUNT - LAW ENFORCEMENT (0204-02-034)	1	DOL

This Change Order results in a net decrease of \$5,274.97 to the Contract amount, for an adjusted Contract total of \$82,665,928.18. The original Contract amount was \$81,941,038.13. As a result of this and all Change Orders to-date, \$724,890.05 has been added to the Contract, resulting in an 0.88% net increase in the Contract cost. No additional days will be added to or deducted from the Contract as a result of this Change Order.

**HNTB Corporation**

Oscar Salazar-Bueno, P.E.

**Julissa Vasquez**

**From:** Hector Garcia <hector.garcia@prim.com>  
**Sent:** Thursday, June 29, 2023 2:06 PM  
**To:** Asif Mirzazada  
**Cc:** Kyle Oldham; Dalimar Rosario; Gary Couch; 61272\_FM3349AtUS79; Oscar Salazar-Bueno; Steven Shull; David Thornhill  
**Subject:** RE: 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

No questions. I'm assuming we will see a change order for these three bid items to adjust the unit price correct?

**Hector Garcia**  
Project Engineer  
PSC – James Construction Group

Cell: 254-370-2064  
[hector.garcia@prim.com](mailto:hector.garcia@prim.com)

**From:** Asif Mirzazada <amirzazada@hntb.com>  
**Sent:** Thursday, June 29, 2023 11:31 AM  
**To:** Hector Garcia <hector.garcia@prim.com>  
**Cc:** Kyle Oldham <koldham@prim.com>; Dalimar Rosario <drosario@prim.com>; Gary Couch <gcouch@prim.com>; 61272\_FM3349AtUS79 <61272\_FM3349AtUS79@HNTB.com>; Oscar Salazar-Bueno <osalazarbueno@HNTB.com>; Steven Shull <sshull@HNTB.com>; David Thornhill <dthornhill@HNTB.com>  
**Subject:** RE: 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

CAUTION: This email originated from outside the organization. Do not click links or open attachments unless you have verified the sender and know the content is safe! If this message is suspicious, please use the **Report Phish** button to notify IT.

Hector,  
I would apply the \$42,050.40 proposed cost reduction for allowing the material on unit price in lieu of reducing quantity since the quantity shall be the same to install.

See below table with reducing unit price.

ORIGINAL					
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL
432 6031	RIPRAP (STONE PROTECTION) (12 IN)	CY	1,289.0	\$ 102.89	\$ 132,625.21
432 6033	RIPRAP (STONE PROTECTION) (18 IN)	CY	1,805.0	\$ 101.70	\$ 183,568.50
432 6035	RIPRAP (STONE PROTECTION) (24 IN)	CY	8,503.0	\$ 84.94	\$ 722,244.82
					\$ 1,038,438.53

10 % COST REDUCTION DUE TO GRAVITY					
ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL
432 6031	RIPRAP (STONE PROTECTION) (12 IN)	CY	1,289.0	\$ 92.02	\$ 118,608.41
432 6033	RIPRAP (STONE PROTECTION) (18 IN)	CY	1,805.0	\$ 93.93	\$ 169,551.70
432 6035	RIPRAP (STONE PROTECTION) (24 IN)	CY	8,503.0	\$ 83.29	\$ 708,228.02
					\$ 996,388.13

Total Reduction \$ 42,050.40

Let me know if you have any questions.

Thank you,

Asif Mirzazada  
Sr. Field Engineer  
Williamson County Road Dred Program  
Mobile (512) 987-9179 Email [amirzazada@hntb.com](mailto:amirzazada@hntb.com)

**From:** Hector Garcia <hector.garcia@prim.com>  
**Sent:** Wednesday, May 24, 2023 8:53 AM  
**To:** Asif Mirzazada <amirzazada@hntb.com>  
**Cc:** Kyle Oldham <koldham@prim.com>; Dalimar Rosario <drosario@prim.com>; Gary Couch <gcouch@prim.com>; 61272\_FM3349AtUS79 <61272\_FM3349AtUS79@HNTB.com>; Oscar Salazar-Bueno <osalazarbueno@HNTB.com>; Steven Shull <sshull@HNTB.com>; David Thornhill <dthornhill@HNTB.com>  
**Subject:** RE: 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

Asif,

I've attached a copy of the estimate sheet and for simplicity's sake I kept the discount/savings for the material cost on the 24" Rip Rap Line (0432-6035).

Totals to \$42,050.40 proposed cost reduction for allowing the material.

Let me know if you have any questions.

Thanks!

**Hector Garcia**  
Project Engineer  
PSC – James Construction Group

Cell: 254-370-2064  
[hector.garcia@prim.com](mailto:hector.garcia@prim.com)

From: Asif Mirzazada <[amirzazada@hntb.com](mailto:amirzazada@hntb.com)>  
Sent: Tuesday, May 23, 2023 11:51 AM  
To: Hector Garcia <[hector.garcia@prim.com](mailto:hector.garcia@prim.com)>  
Cc: Kyle Oldham <[koldham@prim.com](mailto:koldham@prim.com)>; Dalimar Rosario <[drosario@prim.com](mailto:drosario@prim.com)>; Gary Couch <[gcouch@prim.com](mailto:gcouch@prim.com)>; 61272\_FM3349AtUS79 <[61272\\_FM3349AtUS79@HNTB.com](mailto:61272_FM3349AtUS79@HNTB.com)>; Oscar Salazar-Bueno <[osalazarbueno@HNTB.com](mailto:osalazarbueno@HNTB.com)>; Steven Shull <[sshull@HNTB.com](mailto:sshull@HNTB.com)>; David Thornhill <[dthornhill@HNTB.com](mailto:dthornhill@HNTB.com)>  
Subject: RE: 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

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Hector,  
I am Ok with the proposed material and 10% reduction on cost. Can you please provide a quantity table or mark up reflecting the 10% reduction in unit price? Seem the Millers quote is per ton and we have CY on our bid form.

Thank you.

Asif Mirzazada  
Sr. Field Engineer  
Williamson County Road Bond Program  
Mobile: (412) 867-9179 Email: [amirzazada@hntb.com](mailto:amirzazada@hntb.com)

From: Hector Garcia <[hector.garcia@prim.com](mailto:hector.garcia@prim.com)>  
Sent: Tuesday, May 23, 2023 11:19 AM  
To: Asif Mirzazada <[amirzazada@hntb.com](mailto:amirzazada@hntb.com)>  
Cc: Kyle Oldham <[koldham@prim.com](mailto:koldham@prim.com)>; Dalimar Rosario <[drosario@prim.com](mailto:drosario@prim.com)>; Gary Couch <[gcouch@prim.com](mailto:gcouch@prim.com)>; 61272\_FM3349AtUS79 <[61272\\_FM3349AtUS79@HNTB.com](mailto:61272_FM3349AtUS79@HNTB.com)>; Oscar Salazar-Bueno <[osalazarbueno@HNTB.com](mailto:osalazarbueno@HNTB.com)>; Steven Shull <[sshull@HNTB.com](mailto:sshull@HNTB.com)>; David Thornhill <[dthornhill@HNTB.com](mailto:dthornhill@HNTB.com)>  
Subject: RE: 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

Asif,

Following up on the matter below. We're ready to bring rock in for Jug Handle and Boggy Creek

Thanks!

Hector Garcia  
Project Engineer  
PSC – James Construction Group

Cell: 254-370-2064  
[hector.garcia@prim.com](mailto:hector.garcia@prim.com)

From: Hector Garcia  
Sent: Friday, May 19, 2023 8:05 AM  
To: Asif Mirzazada <[amirzazada@hntb.com](mailto:amirzazada@hntb.com)>  
Cc: Kyle Oldham <[koldham@prim.com](mailto:koldham@prim.com)>; Dalimar Rosario <[drosario@prim.com](mailto:drosario@prim.com)>; Gary Couch <[gcouch@prim.com](mailto:gcouch@prim.com)>; 61272\_FM3349AtUS79 <[61272\\_FM3349AtUS79@HNTB.com](mailto:61272_FM3349AtUS79@HNTB.com)>; Oscar Salazar-Bueno <[osalazarbueno@HNTB.com](mailto:osalazarbueno@HNTB.com)>; Steven Shull <[sshull@HNTB.com](mailto:sshull@HNTB.com)>; David Thornhill <[dthornhill@HNTB.com](mailto:dthornhill@HNTB.com)>  
Subject: RE: 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

Asif,

Attached is our quote & PO to Miller Springs Quarry for rock rip rap. Material costs JCG \$21 p/ton for rock rip rap and the rock is at 90.8% compliance of specific gravity. JCG proposes a 10% cut in material costs (\$18.90 p/ton) to the county which would bring our revenue down from \$1,796,935.80 to 1,754,885.40 for 12-18-24" rip rap.

Let me know if you have any questions and if we can agree to this proposal.

Thanks!

Hector Garcia  
Project Engineer  
PSC – James Construction Group

Cell: 254-370-2064  
[hector.garcia@prim.com](mailto:hector.garcia@prim.com)

From: Asif Mirzazada <[amirzazada@hntb.com](mailto:amirzazada@hntb.com)>  
Sent: Thursday, May 18, 2023 8:10 AM  
To: Hector Garcia <[hector.garcia@prim.com](mailto:hector.garcia@prim.com)>  
Cc: Kyle Oldham <[koldham@prim.com](mailto:koldham@prim.com)>; Dalimar Rosario <[drosario@prim.com](mailto:drosario@prim.com)>; Gary Couch <[gcouch@prim.com](mailto:gcouch@prim.com)>; 61272\_FM3349AtUS79 <[61272\\_FM3349AtUS79@HNTB.com](mailto:61272_FM3349AtUS79@HNTB.com)>; Oscar Salazar-Bueno <[osalazarbueno@HNTB.com](mailto:osalazarbueno@HNTB.com)>; Steven Shull <[sshull@HNTB.com](mailto:sshull@HNTB.com)>; David Thornhill <[dthornhill@HNTB.com](mailto:dthornhill@HNTB.com)>  
Subject: RE: 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

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Hector,

Based on the acceptance in other district we are Ok with the submittal. Please let us know what price reduction JCG is proposing.

Thank you,

Asif Mirzazada  
Sr. Field Engineer  
Williamson County Road Bond Program  
Mobile (512) 547-0173 Email [amirzazada@hntb.com](mailto:amirzazada@hntb.com)

**From:** Hector Garcia <[hector.garcia@prim.com](mailto:hector.garcia@prim.com)>  
**Sent:** Tuesday, May 9, 2023 10:21 AM  
**To:** Asif Mirzazada <[amirzazada@hntb.com](mailto:amirzazada@hntb.com)>  
**Cc:** Kyle Oldham <[koldham@prim.com](mailto:koldham@prim.com)>; Dalimar Rosario <[drosario@prim.com](mailto:drosario@prim.com)>; Gary Couch <[gcouch@prim.com](mailto:gcouch@prim.com)>; 61272\_FM3349AtUS79 <[61272\\_FM3349AtUS79@HNTB.com](mailto:61272_FM3349AtUS79@HNTB.com)>  
**Subject:** 3486-01-008 - SUBMITTAL #10906-080 - MILLER SPRINGS - ROCK RIP RAP

Asif,

I'm attaching submittal #10906-080 for Rock Rip Rap on this project. As discussed in our owners' meeting, we're aware that the specific gravity is below the required 2.5 TxDOT spec for rock rip rap. This material has been approved for use by TxDOT in both the Waco & Bryan districts under an agreed upon price reduction due to it being slightly under spec. Please review and see correspondence directly from the TxDOT Bryan district showing that it can be accepted under a price reduction agreement. Let this be written notice that JCG would like to have this rock approved for use under an agreed upon price reduction if necessary.

Thanks!

Hector Garcia  
Project Engineer  
PSC – James Construction Group

Cell: 254-370-2064  
[hector.garcia@prim.com](mailto:hector.garcia@prim.com)

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*This e-mail and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom they are addressed. If you are NOT the intended recipient and receive this communication, please delete this message and any attachments. Thank you.*

Note!: This email originated from outside our organization. Be cautious when opening Links and Attachments that you were not expecting.

*This e-mail and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom they are addressed. If you are NOT the intended recipient and receive this communication, please delete this message and any attachments. Thank you.*

Note!: This email originated from outside our organization. Be cautious when opening Links and Attachments that you were not expecting.

5880 WEST HWY 190, SUITE 100  
BELTON, TX 76513  
PHONE (254) 939-8610  
FAX (254) 939-8611



05/09/2023

HNTB CORPORATION  
Attention: ASIF MIRZAZADA  
101 E. OLD SETTLERS BLVD. STE.225  
ROUND ROCK, TX 78664

RE: Project: FM 3349 @ US 79  
Project Number: 22IFB139  
CSJ:  
Document Type: Submittal  
Document Number: Submittal # 080  
Rev. 0  
Document Description: MILLER SPRINGS - ROCK RIP RAP 12-18-24 IN

Submittal Item	Description
#001	E20630716_TX403-5,9
#002	FW SM ID 1705020JJHNSO2017

Review the attached documents pertaining to FM 3349 @ US 79 and provide approval or notes for required revisions by May 16, 2023.

Please call if there are any questions regarding this correspondence.

Thank you,

CC:

SUBMITTAL No. 080-Miller Spr Rock Riprap	
<input type="checkbox"/> A) APPROVED	The logo for HDR, consisting of the letters "HDR" in a bold, sans-serif font.
<input checked="" type="checkbox"/> B) APPROVED AS NOTED	
<input type="checkbox"/> C) REVISE AND RESUBMIT	
<input type="checkbox"/> D) NOT APPROVED	
<input type="checkbox"/> E) SUBMITTAL NOT REVIEWED	
<small>Review and approval is for compatibility with design concept and general conformance with the contract documents. Review and approval does not extend to means, methods, techniques, sequences, or procedures of construction or safety precautions or programs. Review and approval shall not relieve Contractor from responsibility for complying with the requirements of the Contract Documents.</small>	
BY: Philip Fulton	DATE: 05/17/2023
PROJECT #: 10358627	
PROJECT NAME: FM3349 at US 79 WA #5	







**TEXAS DEPARTMENT OF TRANSPORTATION**  
MTD - SOILS/AGGREGATES LABORATORY

**Moisture Properties and Unit Weight of Concrete Aggregates**  
**Tex-403,404,405,409-A**

Refresh Workbook

File Version: 03/09/15 10:27:06

SAMPLE ID:	1705020JJOHNSO2017	SAMPLED DATE:	05/07/2020
TEST NUMBER:	02	LETTING DATE:	08/07/2019
SAMPLE STATUS:	PEND	CONTROLLING CSJ:	2133-02-014
COUNTY:	MILAM	SPEC YEAR:	2014
SAMPLED BY:	DAVID RINN	SPEC ITEM:	04326033
SAMPLE LOCATION:		SPECIAL PROVISION:	
MATERIAL CODE:	0432RIPRAP	GRADE:	
MATERIAL NAME:	RIP-RAP STONE		
PRODUCER:	MILLERSPRINGS0:MILLER SPRINGS BELTON PIT		
AREA ENGINEER:	JAMES KREAMER	PROJECT MANAGER:	LAUREN BARRICK

COURSE/LIFT:	STATION:	DIST. FROM CL:
Weight of the aggregate and container, (lb.):		
Tare weight of the container, (lb.):		
X = mass of aggregate (oven dry) in the container, (lb.):		
W = average net mass of (SSD) aggregate, $X(100+A) / 100$ : (lb.):		
Dry Unit Weight, $U = W_{dry} / V$ , (lb./ft <sup>3</sup> ):		
(SSD) Unit Weight, $U = W / V$ , (lb./ft <sup>3</sup> ):		
Average Dry Unit Weight, (lb./ft <sup>3</sup> ):		
Average (SSD) Unit Weight, (lb./ft <sup>3</sup> ):		

**Tex-405-A. Determining the Percent of Solids and Voids in Concrete Aggregate**

	% Solids	% Voids
Saturated Surface Dry:		

Remarks:


Test Method:	Tested By:	Tested Date:
TX403	DSCHAUER	06/09/20
TX404		
TX405		
TX409		

Test Stamp Code:	Omit Test:	Completed Date:	Reviewed By:
SC05:Does Not Meet Specification		06/12/20	MDAWIDC

Locked By:	TxDOT:	District:	Area:

Authorized By:	Authorized Date:

SUBMITTAL No. 080-Miller Spr Rock Riprap	
<input type="checkbox"/> A) APPROVED <input checked="" type="checkbox"/> B) APPROVED AS NOTED <input type="checkbox"/> C) REVISE AND RESUBMIT <input type="checkbox"/> D) NOT APPROVED <input type="checkbox"/> E) SUBMITTAL NOT REVIEWED	
Review and approval is for compatibility with design concept and general conformance with the contract documents. Review and approval does not extend to means, methods, techniques, sequences, or procedures of construction or safety precautions or programs. Review and approval shall not relieve Contractor from responsibility for complying with the requirements of the Contract Documents.	
BY: Philip Fulton	DATE: 05/17/2023
PROJECT #: 10358627	
PROJECT NAME: FM3349 at US 79 WA #5	

**TEXAS DEPARTMENT OF TRANSPORTATION**

MTD - SOILS/AGGREGATES LABORATORY

## MAGNESIUM SULFATE SOUNDNESS

**Tex-411-A**

Refresh Workbook

File Version: 03/09/15 10:27:11

SAMPLE ID: 1705020JJHNSO2017		SAMPLED DATE: 05/07/2020	
TEST NUMBER: 01		LETTING DATE: 08/07/2019	
SAMPLE STATUS: PENA		CONTROLLING CSJ: 2133-02-014	
COUNTY: MILAM		SPEC YEAR: 2014	
SAMPLED BY: DAVID RINN		SPEC ITEM: 04326033	
SAMPLE LOCATION:		SPECIAL PROVISION:	
MATERIAL CODE: 0432RIPRAP		GRADE: ROCK RIPRAP	
MATERIAL NAME: RIP-RAP STONE			
PRODUCER: MILLERSPRINGS0:MILLER SPRINGS BELTON PIT			
AREA ENGINEER: JAMES KREAMER		PROJECT MANAGER: LAUREN BARRICK	
COURSE/LIFT:		STATION:	
		DIST. FROM CL.:	

Particle Size Range		Initial Weight (g)	Final Weight (g)	Loss of Weight (g)	% Loss	Normalized Individual Percent Retained	Weighted Average % Loss
Passing	Retained						
2-1/2"	1-1/2"	5081.0	2873.0	2208.0	43.5%	70%	30.45%
1-1/2"	3/4"	1511.5	981.2	530.3	35.1%	30%	10.53%
<b>Total:</b>					<b>78.6</b>	<b>100</b>	<b>40.98</b>

no more than 18% loss

<b>Soundness Loss:</b>	<b>41</b>
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CYCLE	PHASE	DATE	TIME IN	TIME OUT	REMARKS
I	In solution				
	Out of Solution				
	In oven				
	Out of oven				
II	In solution				
	Out of Solution				
	In oven				
	Out of oven				
III	In solution				
	Out of Solution				
	In oven				
	Out of oven				
IV	In solution				
	Out of Solution				
	In oven				
	Out of oven				
V	In solution				
	Out of Solution				
	In oven				
	Out of oven				

HDR inserted this Tex-411-A sheet from the forwarded email so all test reports are in one document.

**SUBMITTAL** No **09D-Miller Spr Rock Riprap**

☐ A) APPROVED

☒ B) APPROVED AS NOTED

☐ C) REVISE AND RESUBMIT

☐ D) NOT APPROVED

☐ E) SUBMITTAL NOT REVIEWED

**HDR**

Review and approval is for compatibility with design concept and general conformance with the contract documents. Review and approval does not extend to means, methods, techniques, sequences or procedures of construction or safety precautions or programs.

Review and approval shall not relieve Contractor from responsibility for complying with the requirements of the Contract Documents.

By Philip Fulton DATE 06/17/2023

PROJECT # 10358627

PROJECT NAME FM3349 at US 79 WA #5

Remarks:

[illegible]

Test Method:	Tested By:	Tested Date:
TX411	DSCHAUER	06/04/20
Test Stamp Code:	Omit Test:	Completed Date
SC05:Does Not Meet Specification		06/12/20
Reviewed By:	MDAWIDC	
Locked By:	TxDOT:	District:
Area:		
Authorized By:	Authorized Date:	