COLORADO
Division of Reclamation, Mining and Safety
Department of Natural Resources

July 2, 2024

Mike Langston
Langston Concrete, Inc.
902 South Union Street
P.O. Box 279
Florence, CO 81226

RE: Florence Sand & Gravel Pit – File No. M-1992-051; Amendment (AM-1); Adequacy Review 3

Dear Mr. Langston,

On October 8, 2024, the Division of Reclamation, Mining, and Safety (Division/DRMS) began the technical review of the amendment application (AM-1) for the Florence Sand & Gravel Pit, Permit No. M-1992-051, requesting to add 4.92 acres to the permit area, revised the mining plan to include a wash plant, and increasing the maximum disturbed area at any one time to 70 acres. The response to the second adequacy review was received by the Division on June 20, 2025. After reviewing the responses, the following items remain unresolved or require further clarification. Please provide the following requested information and any supplemental documents to address the identified deficiencies.

Rule 6.4.12 Exhibit L – Reclamation Costs

1. The required financial warranty was re-calculated based on the response to the second adequacy review. According to the updates provided about the mining and reclamation plans, the need to plate the pit floor will not be necessary given the need to plate during mining operations. The plating task was removed from the calculation and information about the abandonment of the water pipeline was included. According to the Division's calculation, the required Financial Warranty is $62,026.00; details of the calculation are attached with this letter. Please note that the volumes calculated for knocking down the highwalls are based on a final grade of 2H:1V as stated in the reclamation plan. These amounts may not be accurate; please see item #2 below.

Rule 6.4.19 Exhibit S – Permanent Man-made Structures

2. In lieu of structure agreements, the applicant submitted an engineering evaluation report. After reviewing the engineering evaluation performed by Southern Colorado Engineering, the factor of safety of 1.35 is based on the slopes being graded to a 3H:1V. It is stated in Exhibit E: Reclamation Plan, that the highwalls and mining perimeter will be graded to a slope of 2H:1V. The report does state that the existing berms and setbacks of the operation are adequate to prevent any damage to the existing structures. However,

clarification is needed regarding the discrepancy regarding the final slopes.

This concludes the Division's third adequacy review of the AM-1 application. The Division reserves the right to further supplement this document with additional adequacy items and /or details necessary.

The decision date for the AM-1 application is July 3, 2025. At that time, if the issues identified are not resolved to the satisfaction of the Division, the application may be denied. Please respond with sufficient time to allow the Division to completely review the submitted responses to the above items. If additional time is needed, please submit an extension request in writing to the Division prior to the decision date.

If you have any questions or concerns, I can be reached by email at Jocelyn.carter@state.co.us or by phone at (720)666-1065.

Sincerely,

Jocelyn Carter
Environmental Protection Specialist

Ec: Amy Eschberger, DRMS
Zac Langston, Langston Concrete, Inc.

Enclosures: Division's RCE

COST SUMMARY WORK

Task description: **Cost Summary**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 4/4/2025 County: Fremont Filename: M051-000
User: JLC

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Push Down Highwalls, 2,000' length, 42' Height	DOZER	4	11.05	$10,015
002	Filling Pond, 200' L, 250' W, 5' D	DOZER	2	15.46	$7,003
002a	Pipeline Abandonment, Dig & Backfill Ends	EXCAVATE	1	0.03	$3
002b	Capping Pipeline	BOREHOLE	1	3.00	$93
003	Grading 70 Acres	GRADER	4	5.61	$4,643
004	Weed Management	REVEGE	1	26.00	$2,031
005	Mob/Demob Equipment	MOBILIZE	1	8.28	$20,517
		SUBTOTALS:		**69.43**	**$44,305**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$895
Performance bond:	1.05	Total =	$465
Job superintendent:	66.61	Total =	$5,004
Profit:	10.00	Total =	$4,430
		TOTAL O & P =	$10,795
		CONTRACT AMOUNT (direct + O & P) =	$55,100

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$500	Total =	$500
Engineering work and/or contract/bid preparation:	4.25	Total =	$2,342
Reclamation management and/or administration:	5.00		$2,755
CONTINGENCY:	3.00	Total =	$1,329
		TOTAL INDIRECT COST =	$17,721
		TOTAL BOND AMOUNT (direct + indirect) =	**$62,026**

BULLDOZER WORK

Task description: **Push Down Highwalls, 2,000' length, 42' Height**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 4/4/2025 County: Fremont Filename: M051-001
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP
Horsepower: 240
Blade Type: Straight
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$97.39	NA
Operating Cost/Hour:	$80.69	100
Ripper own. Cost/Hour:	$9.58	NA
Ripper op. Cost/Hour:	$0.85	15
Operator Cost/Hour:	$38.02	NA

Total unit Cost/Hour: $226.52
Total Fleet Cost/Hour: **$906.10**

MATERIAL QUANTITIES

Initial Volume: 22,969
Swell factor: 1.125
Loose volume: **25,840** LCY

Source of estimated volume: AM1 Application, 2000' Highwall @ Ave 42' height, 2:1 Slope
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 75 feet
Unadjusted hourly production: 594.6 LCY/hr

Materials consistency description: Consolidated stockpile 1.0

Average push gradient: -25 %
Average site altitude: 5,250 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.200	(S-BY-S)

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.516	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.9830

Adjusted unit production: 584.49 LCY/hr
Adjusted fleet production: **2337.96** LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: $0.388/LCY

Total job time: **11.05** Hours
Total job cost: **$10,015**

BULLDOZER WORK

Task description: **Filling Pond, 200' L, 250' W, 5' D**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 4/4/2025 County: Fremont Filename: M051-002
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat D7R DS Series II LGP
Horsepower: 240
Blade Type: Straight
Attachment: 3-shank ripper
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$97.39	NA
Operating Cost/Hour:	$80.69	100
Ripper own. Cost/Hour:	$9.58	NA
Ripper op. Cost/Hour:	$0.85	15
Operator Cost/Hour:	$38.02	NA

Total unit Cost/Hour: $226.52
Total Fleet Cost/Hour: **$453.05**

MATERIAL QUANTITIES

Initial Volume: 9,260
Swell factor: 1.250
Loose volume: **11,575** LCY

Source of estimated volume: AM1 Application, Exh. E
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Average push distance: 60 feet
Unadjusted hourly production: 700.0 LCY/hr

Materials consistency description: Partly consolidated stockpile 1.1

Average push gradient: 0 %
Average site altitude: 5,240 feet

Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.900	(SSD-FC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5349

Adjusted unit production: 374.43 LCY/hr
Adjusted fleet production: **748.86** LCY/hr

JOB TIME AND COST

Fleet size: 2 Dozer(s)
Unit cost: $0.605/LCY

Total job time: **15.46** Hours
Total job cost: **$7,003**

HYDRAULIC EXCAVATOR WORK

Task description: **Pipeline Abandonment, Dig & Backfill Ends**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 002A State: Colorado Abbreviation: None
Date: 7/2/2025 County: Fremont Filename: M051-002a
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: Cat 307D 7'-3" Stick
Attachment 1: ROPS Cab

Horsepower: 56
Weight (MT): 7.23
Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$23.71	NA
Operating Cost/Hour:	$13.26	100
Operator Cost/Hour:	$59.31	NA
Total Unit Cost/Hour:	$96.28	

Total Fleet Cost/Hour: $96.28

MATERIAL QUANTITIES

Initial volume: 1 CCY Swell factor: 1.125
Loose volume: **1** LCY

Source of estimated volume: Division of Reclamation, Mining & Safety
Source of estimated swell factor: Cat Handbook

HOURLY PRODUCTION

Excavator Cycle Time (load bucket, swing loaded, dump bucket, swing empty):

Basic Job Condition Description: AVERAGE
Secondary Job Condition within Basic Description: AVERAGE
Cycle Time Value: 0.242 minutes

Load Bucket Capacity

Bucket Size Class: Small

Rated Capacity: 0.20 LCY (heaped)
Bucket Fill Factor: 0.900 Other - cemented materials (85 - 95%) 0.900
Adjusted Capacity: **0.18** LCY

Job Condition Correction Factors Site Altitude: 5420 feet

		Source
Altitude Adj:	0.90	(CAT HB)
Job Efficiency:	0.83	(1 shift/day)
Net Correction:	0.75	multiplier

Unadjusted Hourly Unit Production: 44.63 LCY/Hour
Adjusted Hourly Unit Production: 33.34 LCY/Hour
Adjusted Hourly Fleet Production: **33.34** LCY/Hour

JOB TIME AND COST

Fleet size: 1 Excavator Total job time: **0.03** Hours

Unit cost: $2.888 /LCY Total job cost: **$3**

BOREHOLE SEALING WORK

Task description: **Capping Pipeline**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 002B State: Colorado Abbreviation: None
Date: 7/2/2025 County: Fremont Filename: M051-002b
User: JLC

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Capping cement	Portland cement grout (Bag, material cost only...94 lb. bag)	6	1	1.00	bag	$22.50	$22.50
Labor	General laborer - Colorado (total incl. fringes, empl. burden)	6	1	3.00	HR	$23.53	$70.59

Job Hours: **3.00** **Total Cost**: **$93.00**

MOTOR GRADER WORK

Task description: **Grading 70 Acres**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 4/4/2025 County: Fremont Filename: M051-003
User: JLC

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine: CAT 16M Horsepower: 297
Ripper Attachment: Shift Basis: 1 per day
Data Source: (CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$78.02	NA
Operating Cost/Hour:	$68.53	100
Ripper Ownership Cost/Hour:	$0.00	NA
Ripper Operating Cost/Hour:	$0.00	
Operator Cost/Hour:	$60.00	NA
Total Unit Cost/Hour:	$206.55	
Total Fleet Cost/Hour:	**$826.20**	

MATERIAL QUANTITIES

Total Area to be graded or ripped: 70.00 acres

Source of estimated acreage: AM1 Application

HOURLY PRODUCTION

Average Grader Speed: 3.25 mph
Selected Application: Heavy blading (0-6 mph) - 3.25
Selected Blade Angle: 45 degrees
Effective Blade Length: 11.30 feet
Width of blade overlap per pass: 2.00 feet
Net grading or ripping width per pass: 9.30 feet
Unadjusted Hourly Unit Production: 3.6636 acres/hour

Job Condition Correction Factors Site Altitude: 5240 feet

		Source
Altitude Adj:	1.00	(CAT HB)
Job Efficiency:	0.85	(1sh/d, mod.)
Net Correction:	0.8500	multiplier

Adjusted Hourly Unit Production: 3.1141 acres/Hour
Adjusted Hourly Fleet Production: **12.4564** acres/Hour

JOB TIME AND COST

Fleet size: 4 Grader(s) Total job time: **5.62** Hours

Unit cost: $66.33 per acre Total job cost: **$4,643**

REVEGETATION WORK

Task description: **Weed Management**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 004 State: Colorado Abbreviation: None
Date: 4/4/2025 County: Fremont Filename: M051-004
User: JLC

Agency or organization name: DRMS

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			$	$
			Total Fertilizer Materials Cost/Acre	**$0.00**

Application

Description	Cost /Acre
	$
Total Fertilizer Application Cost/Acre	**$0.00**

TILLING

Description	Cost /Acre
	$
Total Tilling Cost/Acre	**$0.00**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
			$
Totals Seed Mix	0.00	0.00	**$0.00**

Application

Description	Cost /Acre
	$

Total Seed Application Cost/Acre	**$0.00**

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	2.00	ACRE	$4.44	$8.88
Total Mulch Materials Cost/Acre				**$8.88**

Application

Description	Cost /Acre
Weed spray, truck, non-aquatic areas, ann. [DMG]	$27.84
Total Mulch Application Cost/Acre	**$27.84**

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					$
Totals Nursery Stock Cost / Acre					**$0.00**

JOB TIME AND COST

No. of Acres: 55.3
Estimated Failure Rate: 0%
*Selected Replanting Work Items: NONE

Cost /Acre: $36.72
Cost /Acre*: $0.00

Initial Job Cost: **$2,030.62**
Reseeding Job Cost: **$0.00**
Total Job Cost: **$2,031**
Job Hours: **26.00**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob/Demob Equipment**

Site: **Florence Sand & Gravel Pit** Permit Action: 2025 AM1 Permit/Job#: M1992051

PROJECT IDENTIFICATION

Task #: 005 State: Colorado Abbreviation: None
Date: 4/4/2025 County: Fremont Filename: M051-005
User: JLC

Agency or organization name: DRMS

EQUIPMENT TRANSPORT RIG COST

Shift basis: 1 per day
Cost Data Source: CRG Data

Truck Tractor Description: GENERIC ON-HIGHWAY TRUCK TRACTOR, 6X4, DIESEL POWERED, 400 HP (2ND HALF, 2006)

Truck Trailer Description: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50T, AND 100T)

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	$21.47	$38.32	$48.96
Operating Cost/Hour:	$31.47	$60.11	$65.86
Operator Cost/Hour:	$22.52	$22.52	$22.52
Helper Cost/Hour:	$0.00	$22.25	$22.25
Total Unit Cost/Hour:	$75.46	$143.20	$159.59

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D7R DS Series II LGP	38.49	$106.97	$143.20	4	$1,000.68	$572.80	$1,000.00
CAT 16M	28.73	$78.02	$143.20	4	$884.88	$572.80	$500.00
Drill/Broadcast Seeder with Tractor	25.00	$5.99	$75.46	1	$81.45	$75.46	$250.00
Cat 307D 7'-3" Stick	7.95	$23.71	$75.46	1	$99.17	$75.46	$250.00
Subtotals:					**$2,066.18**	**$1,296.52**	**$2,000.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	$31.11	1	$31.11	$31.11
Subtotals:			**$31.11**	**$31.11**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CANON CITY	
Total one-way travel distance:	10.00	miles
Average Travel Speed:	25.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$20,492.24
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$24.89

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.40	0.40
Return Time (Hours):	0.40	0.40
Loading Time (Hours):	1.67	NA
Unloading Time (Hours):	1.67	NA
Subtotals:	4.14	0.80

JOB TIME AND COST

Total job time:	**8.28**	Hours
Total job cost:	**$20,517**	