COST SUMMARY WORK

Task description: **2021 Bond Estimate**

Site: **Lombard #3** Permit Action: 2021 Bond Estimate Permit/Job#: M2020057

PROJECT IDENTIFICATION

Task #: 000 State: Colorado Abbreviation: None
Date: 9/16/2021 County: Clear Creek Filename: M057-000
User: PSH

Agency or organization name: DRMS

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Mob / Demob	MOBILIZE	1	20.57	$2,302
002	Backfill Adit	MINESEAL	1	16.00	$5,079
003	Revegetate 2.0 Acres	REVEGE	1	16.00	$7,813
004	Replace Topsoil 4-6" - 2.0 Acres	DOZER	1	25.81	$2,487
	SUBTOTALS:			**78.38**	**$17,681**

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	$357
Performance bond:	1.05	Total =	$186
Job superintendent:	39.19	Total =	$2,823
Profit:	10.00	Total =	$1,768
		TOTAL O & P =	$5,134
		CONTRACT AMOUNT (direct + O & P) =	$22,815

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	$0	Total =	$0
Engineering work and/or contract/bid preparation:	4.25	Total =	$970
Reclamation management and/or administration:	5.00		$1,141
CONTINGENCY:	0.00	Total =	$0
		TOTAL INDIRECT COST =	$7,244
		TOTAL BOND AMOUNT (direct + indirect) =	**$25,000 (Rounded)**

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: **Mob / Demob**

Site: **Lombard #3** Permit Action: 2021 Bond Estimate Permit/Job#: M2020057

PROJECT IDENTIFICATION

Task #: 001 State: Colorado Abbreviation: None
Date: 9/16/2021 County: Clear Creek Filename: M057-001
User: PSH

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:	$21.28	$37.94	$47.67
Operating Cost/Hour:	$26.55	$50.48	$56.21
Operator Cost/Hour:	$20.54	$20.54	$20.54
Helper Cost/Hour:	$0.00	$23.53	$23.53
Total Unit Cost/Hour:	$68.37	$132.49	$147.95

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 246C	3.58	$21.64	$68.37	1	$90.01	$68.37	$250.00
Subtotals:					**$90.01**	**$68.37**	**$250.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Subtotals:			**$0.00**	**$0.00**

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	DENVER	
Total one-way travel distance:	40.00	miles
Average Travel Speed:	35.00	mph

Total Non-Roadable Mob/Demob Cost * '* two round trips with haul rig:	$2,302.17
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	$0.00

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.14	1.14
Return Time (Hours):	1.14	1.14
Loading Time (Hours):	4.00	NA
Unloading Time (Hours):	4.00	NA
Subtotals:	10.29	2.29

JOB TIME AND COST

Total job time:	**20.57**	Hours
Total job cost:	**$2,302**	

SAFEGUARDING UNDERGROUND OPENINGS

Task description: **Backfill Adit**

Site: **Lombard #3** Permit Action: 2021 Bond Estimate Permit/Job#: M2020057

PROJECT IDENTIFICATION

Task #: 002 State: Colorado Abbreviation: None
Date: 9/16/2021 County: Clear Creek Filename: M057-002
User: PSH

Agency or organization name: DRMS

UNIT COSTS

Opening Description	Dimensions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Lombard #3	6x6	Adit closure - backfilling (per cu. yd.)	200.00	CY	$25.00	$5,000.00
Drive equipment to/from site on Cumberland Gulch Road	6200'	CAT 246C	1.00	EA	$78.99	$78.99

Job Hours: **16.00** **Total Cost**: **$5,078.99**

REVEGETATION WORK

Task description: **Revegetate 2.0 Acres**

Site: **Lombard #3** Permit Action: 2021 Bond Estimate Permit/Job#: M2020057

PROJECT IDENTIFICATION

Task #: 003 State: Colorado Abbreviation: None
Date: 9/16/2021 County: Clear Creek Filename: M057-003
User: PSH

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
Hand raking (MEANS 32 91 13.23 0250)	$1,546.38
Weed control spraying (MEANS 31 31 16.13 3100)	$290.40
Total Tilling Cost/Acre	**$1,836.78**

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Elk Sedge	2.90	6.66	$1,249.90
Idaho Fescue	0.80	10.10	$7.58
Locoweed, Showy	0.25	0.72	$17.38
Parry's Oatgrass	2.00	4.13	$44.00
Prairie Junegrass	0.15	7.97	$3.90
Spike Muhly	0.23	8.45	$2.23
Totals Seed Mix	6.33	38.03	**$1,324.99**

Application

Description	Cost /Acre
Broadcast seeding [DMG]	$267.22
Total Seed Application Cost/Acre	**$267.22**

MULCHING and MISCELLANEOUS

Materials

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

Application

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

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: 2
Estimated Failure Rate: 30%
*Selected Replanting Work Items: SEEDING

Cost /Acre: $3,428.99
Cost /Acre*: $1,592.21

Initial Job Cost: **$6,857.98**
Reseeding Job Cost: **$955.33**
Total Job Cost: **$7,813**
Job Hours: **16.00**

BULLDOZER WORK

Task description: **Replace Topsoil 4-6" - 2.0 Acres**

Site: **Lombard #3** Permit Action: 2021 Bond Estimate Permit/Job#: M2020057

PROJECT IDENTIFICATION

Task #:	004	State:	Colorado	Abbreviation:	None
Date:	9/16/2021	County:	Clear Creek	Filename:	M057-004
User:	PSH				

Agency or organization name: DRMS

HOURLY EQUIPMENT COST

Basic Machine:	Cat D3K XL - 3P
Horsepower:	74
Blade Type:	Power Angle Tilt
Attachment:	NA
Shift Basis:	1 per day
Data Source:	(CRG)

Cost Breakdown:

		Utilization %
Ownership Cost/Hour:	$27.67	NA
Operating Cost/Hour:	$27.39	100
Ripper own. Cost/Hour:	$0.00	NA
Ripper op. Cost/Hour:	$0.00	0
Operator Cost/Hour:	$41.30	NA

Total unit Cost/Hour: $96.36
Total Fleet Cost/Hour: **$96.36**

MATERIAL QUANTITIES

Initial Volume:	1,322
Swell factor:	1.000
Loose volume:	**1,322** LCY

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

HOURLY PRODUCTION

Average push distance: 100 feet
Unadjusted hourly production: 100.0 LCY/hr

Materials consistency description: Loose stockpile 1.2

Average push gradient: 5 %
Average site altitude: 11,400 feet

Material weight: 1,600 lbs/LCY

Weight description: Top Soil

Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)

Material consistency:	1.200	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	0.903	(CAT HB)
Altitude:	0.880	(CAT HB)
Material Weight:	1.438	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.5122

Adjusted unit production: 51.22 LCY/hr

Adjusted fleet production: **51.22** LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: $1.881/LCY

Total job time: **25.81** Hours
Total job cost: **$2,487**