

BOND CALCULATION SUMMARY-NONCOAL CONSOLIDATED

Permittee: Pierson Rheems LLC		Date: May 2024
Permit #: 36080301C5	Mine Name: Rheems Quarry Operation	
Municipality: West Donegal and Mount Joy Townships		County: Lancaster

Operation (see attached calculations)	Quantity	Units	Rate \$/Unit	Bond Amount
Mining Area (i.e. minor grading/vegetation)	48.05	Acres	3,500.00	168,175
Support Area (revegetation)	44.38	Acres	1,830.00	81,215
Spoil Storage/Earthmoving	837,330	Cubic yards	1.05	879,197
Highwall Blasting				
Up to 20 ft Height		Linear foot		
>20 up to 30 Height		Linear foot		
>30 up to 40 Height		Linear foot		
>40 up to 50 Height	726	Linear foot	55.00	39,930
>50 Height		Linear foot		
Mine Sealing	N / A	Calculation		
Ponds	1	No of Ponds	3,800.00	3,800
Demolition of Structures	Lump Sum	Calculation		347,031
Large Tires	N / A	Each		
Other Costs				
Waste Concrete	10,500	Ton	75/ton	562,275
Mobilization/Demobilization	Lump Sum	Calculation		83,265
Total Reclamation Cost				2,164,888

Bonding Calculations

May 8, 2024

Large Noncoal Surface Mine Permit

Existing SMP 102.64

Total Proposed Surface Mine Permit Area 132.22 Acres

Total Proposed Bonded Area 115.04 Acres

Area Bonded for Mining	Existing	25.13				
	Proposed Mining	45.53			2023 rates	
	Area below 339	-	22.61 Acres			
			<u>48.05</u>		\$3,500.00 per acre	= \$168,175.00

Area Bonded for Support 44.38 Acres \$1,830.00 per acre = \$81,215.40

50 foot lifts ELEV 370 TO 420 = 726 LF \$55.00 per LF = \$39,930.00

Fill/BERM 837,330 CY \$1.05 per CY = \$879,196.50

Ponds 1 x \$3,800.00 per CF = \$3,800.00

Waste Concrete 10,500 x 1 CY \$75.00 per Ton = \$562,275.00
 LCSW 75 per ton 2000 lbs/ton / 2800 lbs/cy = 0.714

Demolition Buildings Cu. Ft. 675,960 x \$0.22 per CF = \$148,711.20

Equipment 198,320 x \$1.00 per CF = \$198,320.00

Subtotal	=	\$2,081,623.10
Mobilization 4% or 40,000 max	=	\$83,264.92
TOTAL required =		2,164,888.02
Existing =		956,659.00
New bond amount required =		\$1,208,229

Demolition Costs

Area of buildings were determined using aerial photography.
They are hatched in solid red on the bonding map

The cubic feet was determined using an average of a 30' high building

$$22,532 \quad x \quad 30 = \quad \mathbf{675,960 \text{ CF}}$$

Using an average height of 3 feet for conveyors

$$19,832 \quad x \quad 10 = \quad \mathbf{198,320 \text{ CF}}$$