

CARBON OAK, INC.

THUNDER OAKS MINE, P-3998

ALABAMA SURFACE MINING COMMISSION

SURFACE MINING PERMIT APPLICATION

PART V

BONDING

Prepared by:

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V. BONDING

A. Site Conditions

1) Briefly describe the conditions within the increment which you are currently proposing to mine by answering the following:

- | | | |
|-----|--|---------------|
| (a) | Average pre-mining slope | <u>2.93%</u> |
| (b) | Percent sandstone | <u>60.00%</u> |
| (c) | Final highwall slope (average) (if applicable) | <u>4.00%</u> |
| (d) | Acres Prime Farmland | <u>100%</u> |
| (e) | Acres Abandoned Land | <u>0%</u> |
| (f) | Average pH of topsoil or topsoil substitute | <u>6.00</u> |

Note: If pH range over the increment area is greater than one pH unit (unit 1 thru 14), give approximate number of acres which fall within each unit.

- (g) Overburden acid-base account (expressed as tons of calcium carbonate per 1,000 tons material) N/A (only if total sulfur exceeds 0.5%).

B. Estimate of Reclamation Cost (780.18)

Give a detailed estimate of your cost of reclamation for the increment you are currently proposing to mine. Give individual cost estimate for grading, highwall elimination, topsoil (or topsoil substitute) replacement, revegetation and any other cost which may be applicable (prime farmland, hydrologic factors, etc.) **Show Calculations**

V. BONDING

ESTIMATED BOND TOTAL/INC. #1: \$ \$960,441.62

Company: Carbon Oak, Inc. License: L-0830 Acreage Fee (35/acre) \$ 4,235.00

Permit # P-39 Type Action: X New Permit

MINE: Thunder Oaks X New Increment Inc. #1

Expiration Date: _____ Revision. Inc. # _____

Acres to be Bonded Bond # _____

121 Mining Acres Current Amount & (Acres) \$ _____

0 Incidentals After Revision/Review \$ _____

Comments:

Base Calculations for Mining Acres

Grading 121 Acres @ \$1,500/acre \$ 181,500.00

Revegetation 121 Acres @ \$800/acre \$ 96,800.00

Highwall Elimination

Drill & Shoot

Highwall Height (Ft) 99 (hw) $(1/2)[(0.5)(hw)(1.5)(hw)](1/27)(hw)(1.00/yd^3)$ \$ 190,167

Highwall Length (Ft) 1397 (hwl)

Backfill

$(1/2)[(hw)(3)(hw)](1/27)(hwl)1.50/yd^3$ \$ -

Adjustments

| | | | | |
|---------------------------------------|------------|----------------------|----|-------------------|
| 1. Grading | <u>121</u> | Acres @ \$250/acre | \$ | <u>30,250.00</u> |
| 2. Topsoil Replacement | <u>121</u> | Acres @ \$500/acre | \$ | <u>60,500.00</u> |
| 3. Topsoil Substitute | <u>0</u> | Acres @ \$200/acre | \$ | <u>-</u> |
| 4. Post-mine Forest/Range | <u>121</u> | Acres @ \$150/acre | \$ | <u>18,150.00</u> |
| 5. Steep Slope' Mining | <u>0</u> | Acres @ \$100/acre | \$ | <u>-</u> |
| 6. Steeper than 4:1 Post-mining slope | <u>0</u> | Acres @ \$100/acre | \$ | <u>-</u> |
| 7. Greater than 50% Sandstone | <u>121</u> | Acres @ \$300/acre | \$ | <u>36,300.00</u> |
| 8. Prime Farmland | <u>121</u> | Acres @ \$1,500/acre | \$ | <u>181,500.00</u> |
| 9. Adverse PHC | | Site Specific | \$ | <u>-</u> |
| 10. Tuscaloosa Formation | <u>0</u> | Acres @ \$300/acre | \$ | <u>-</u> |

Incidentals

| | | | | |
|--|-----------------------|-------------------------------|----|------------------|
| 1. Haul Roads | <u>0</u> | Acres @ \$1,000/acre | \$ | <u>-</u> |
| 2. Temporary Ponds, Diversions | <u>2</u> | Structures @ \$20,000/Struct. | \$ | <u>40,000.00</u> |
| 3. Permanent Impoundments | <u>0</u> | Structures @ \$10,000/Struct. | \$ | <u>-</u> |
| 4. Permanent Roads | <u>0</u> | Acres @ \$400/acre | \$ | <u>-</u> |
| 5. Coal Stockpiles, Washer & Refuse Disposal Areas | <u>0</u> | Acres @ \$2,000/acre | \$ | <u>-</u> |
| 6. Topsoil Stockpiles | <u>0</u> | Acres @ \$800/acre | \$ | <u>-</u> |
| 7. Removal of Structures | | | | |
| | <u>Washer/Crusher</u> | | \$ | <u>-</u> |
| | <u>Buildings</u> | | \$ | <u>-</u> |
| | <u>Equipment</u> | | \$ | <u>-</u> |
| | <u>Other (List)</u> | | \$ | <u>-</u> |
| TOTAL INCIDENTAL BOND | | | \$ | <u>40,000.00</u> |

Summary of Costs by Category

| | | | |
|----------------------|----------------------------------|----|--------------------------|
| Mining Area | Base Grading | \$ | <u>181,500.00</u> |
| | Base Revegetation | \$ | <u>96,800.00</u> |
| Adjustments | 1. Grading | \$ | <u>30,250.00</u> |
| | 2. Topsoil Replacement | \$ | <u>60,500.00</u> |
| | 3. Topsoil Substitute | \$ | <u>0.00</u> |
| | 4. Forest/Range Land Use | \$ | <u>18,150.00</u> |
| | 5. Steep Slope' Mining | \$ | <u>0.00</u> |
| | 6. Post-mining Slope | \$ | <u>0.00</u> |
| | 7. % Sandstone | \$ | <u>36,300.00</u> |
| | 8. Prime Farmland | \$ | <u>181,500.00</u> |
| | 9. Adverse PHC | \$ | <u>0.00</u> |
| | 10. Tuscaloosa Formation | \$ | <u>0.00</u> |
| Highwall Elimination | | \$ | <u>190,166.63</u> |
| Incidentals | | \$ | <u>40,000.00</u> |
| | Subtotal | \$ | <u>835,166.63</u> |
| | 15% Contractor Profit & Overhead | \$ | <u>125,274.99</u> |
| | TOTAL | \$ | <u>960,441.62</u> |

Conditions to Permit which affect Bond Amount

- 1.
- 2.
- 3.
- 4.

ESTIMATED BOND TOTAL/INC. #6: \$ \$55,947.50

Company: Carbon Oak, Inc. License: L-0830 Acreage Fee (35/acre) \$ 315.00

Permit # P-39 Type Action: X New Permit

MINE: Thunder Oaks X New Increment Inc. #6

Expiration Date: _____ Revision. Inc. # _____

| | | | |
|---------------------------|--------------------------|--------|-------|
| <u>Acres to be Bonded</u> | | Bond # | _____ |
| <u>0</u> Mining Acres | Current Amount & (Acres) | \$ | _____ |
| <u>9</u> Incidentals | After Revision/Review | \$ | _____ |

Comments:

Base Calculations for Mining Acres

| | | | | |
|--------------|----------|----------------------|----|------------------|
| Grading | <u>9</u> | Acres @ \$1,500/acre | \$ | <u>13,500.00</u> |
| Revegetation | <u>9</u> | Acres @ \$800/acre | \$ | <u>7,200.00</u> |

Highwall Elimination

| | | | | |
|----------------------|----------------|--|----|----------|
| | | <u>Drill & Shoot</u> | | |
| Highwall Height (Ft) | <u>0</u> (hw) | $(1/2)[(0.5)(hw)(1.5)(hw)](1/27)(hw)(1.00/yd^3)$ | \$ | <u>-</u> |
| Highwall Length (Ft) | <u>0</u> (hwl) | <u>Backfill</u> | | |
| | | $(1/2)[(hw)(3)(hw)](1/27)(hwl)1.50/yd^3$ | \$ | <u>-</u> |

Adjustments

| | | | | |
|---------------------------------------|----------|----------------------|----|------------------|
| 1. Grading | <u>9</u> | Acres @ \$250/acre | \$ | <u>2,250.00</u> |
| 2. Topsoil Replacement | <u>9</u> | Acres @ \$500/acre | \$ | <u>4,500.00</u> |
| 3. Topsoil Substitute | <u>0</u> | Acres @ \$200/acre | \$ | <u>-</u> |
| 4. Post-mine Forest | <u>0</u> | Acres @ \$150/acre | \$ | <u>-</u> |
| 5. Steep Slope' Mining | <u>0</u> | Acres @ \$100/acre | \$ | <u>-</u> |
| 6. Steeper than 4:1 Post-mining slope | <u>0</u> | Acres @ \$100/acre | \$ | <u>-</u> |
| 7. Greater than 50% Sandstone | <u>9</u> | Acres @ \$300/acre | \$ | <u>2,700.00</u> |
| 8. Prime Farmland | <u>9</u> | Acres @ \$1,500/acre | \$ | <u>13,500.00</u> |
| 9. Adverse PHC | | Site Specific | \$ | <u>-</u> |
| 10. Tuscaloosa Formation | <u>0</u> | Acres @ \$300/acre | \$ | <u>-</u> |

Incidentals

| | | | | |
|--|----------|-------------------------------|----|-----------------|
| 1. Haul Roads | <u>1</u> | Acres @ \$1,000/acre | \$ | <u>1,000.00</u> |
| 2. Temporary Ponds, Diversions | <u>0</u> | Structures @ \$20,000/Struct. | \$ | <u>-</u> |
| 3. Permanent Impoundments | <u>0</u> | Structures @ \$10,000/Struct. | \$ | <u>-</u> |
| 4. Permanent Roads | <u>0</u> | Acres @ \$400/acre | \$ | <u>-</u> |
| 5. Coal Stockpiles, Washer & Refuse Disposal Areas | <u>2</u> | Acres @ \$2,000/acre | \$ | <u>4,000.00</u> |
| 6. Topsoil Stockpiles | <u>0</u> | Acres @ \$800/acre | \$ | <u>-</u> |
| 7. Removal of Structures | | | | |
| | | Washer/Crusher | \$ | <u>-</u> |
| | | Buildings | \$ | <u>-</u> |
| | | Equipment | \$ | <u>-</u> |
| | | Other (List) | \$ | <u>-</u> |

TOTAL INCIDENTAL BOND \$ 5,000.00

Summary of Costs by Category

| | | | |
|----------------------|----------------------------------|----|-------------------------|
| Mining Area | Base Grading | \$ | <u>13,500.00</u> |
| | Base Revegetation | \$ | <u>7,200.00</u> |
| Adjustments | 1. Grading | \$ | <u>2,250.00</u> |
| | 2. Topsoil Replacement | \$ | <u>4,500.00</u> |
| | 3. Topsoil Substitute | \$ | <u>0.00</u> |
| | 4. Forest/Range Land Use | \$ | <u>0.00</u> |
| | 5. Steep Slope' Mining | \$ | <u>0.00</u> |
| | 6. Post-mining Slope | \$ | <u>0.00</u> |
| | 7. % Sandstone | \$ | <u>2,700.00</u> |
| | 8. Prime Farmland | \$ | <u>13,500.00</u> |
| | 9. Adverse PHC | \$ | <u>0.00</u> |
| | 10. Tuscaloosa Formation | \$ | <u>0.00</u> |
| Highwall Elimination | | \$ | <u>0.00</u> |
| Incidentals | | \$ | <u>5,000.00</u> |
| | Subtotal | \$ | <u>48,650.00</u> |
| | 15% Contractor Profit & Overhead | \$ | <u>7,297.50</u> |
| | TOTAL | \$ | <u>55,947.50</u> |

Conditions to Permit which affect Bond Amount

- 1.
- 2.
- 3.
- 4.