



WOOD RODGERS

December 5, 2022
Project No. 2892.040

Mr. Eric Jones
JOY ENGINEERING
1584 Wolf Meadows Lane
Portola, California 96122

RE: Blasted Rock Quarry – Caltrans Shoulder Backing Specifications

Dear Mr. Jones:

Per your request, we have performed testing on the Caltrans Shoulder Backing delivered to our laboratory from the Blasted Rock Quarry. Test results in comparison with section 19-9 Specifications of the 2018 Caltrans Standard Specifications are as follows:

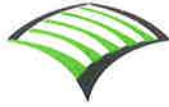
| *Sieve Size Analysis (CT 202) | | |
|--------------------------------------|---------------------------|--|
| U.S. Standard Sieve Size | Percent by Weight Passing | |
| | Blasted Rock Quarry | Caltrans Shoulder Backing Specifications |
| 2 Inch | 100 | 100 |
| 1 Inch | 100 | 75 - 100 |
| ¾ Inch | 100 | 65 - 100 |
| ½ Inch | 89 | – |
| ⅜ Inch | 78 | – |
| No. 4 | 54 | 35 – 60 |
| No. 8 | 40 | – |
| No. 16 | 30 | – |
| No. 30 | 24 | 10 - 35 |
| No. 50 | 19 | – |
| No. 100 | 15 | – |
| No. 200 | 12.0 | 5 – 15 |

| *Durability Index (CT 229) | |
|-----------------------------------|--|
| Blasted Rock Quarry (Coarse/Fine) | Caltrans Shoulder Backing Specifications |
| 36 | 25 Minimum |

| *Sand Equivalent (CT 217) | |
|------------------------------------|--|
| Blasted Rock Quarry (Fine Portion) | Caltrans Shoulder Backing Specifications |
| 35 | 10 – 35 |

Only virgin aggregates were tested. No Reclaimed Asphalt Pavement (RAP) was included in the qualified material

| Fractured Faces (CT 205) | | |
|---------------------------------|---------------------|--|
| | Blasted Rock Quarry | Caltrans Shoulder Backing Specifications |
| Fractured Face | 100 | 75 |
| Fractured Faces | 99 | 50 |



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| Moisture Density (ASTM D1557C) | |
|--------------------------------|-----------|
| **Maximum Dry Density | 125.2 PCF |
| Optimum Moisture | 11.5 % |

**For estimating purposes only. Unit weight of tested material may vary by nature

We appreciate the opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to call.

Sincerely,

WOOD RODGERS, INCORPORATED


Wheeler Musnicki
Laboratory Supervisor

