

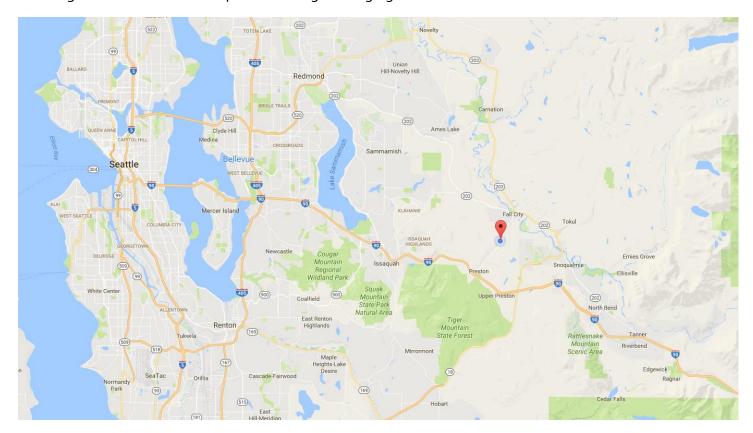
# **ERP ROAD SURFACE MANAGMENT PLAN**

## INTRODUCTION

Eastside Rock Products (ERP) has identified the importance of an established, effective road surface management system. Developing and maintaining a road surface management system that provides a safe, efficient, and environmentally friendly work place greatly benefits the employees, customers, and community surrounding the site.

## SITE OVERVIEW

Eastside Rock Products – Raging River Quarry Operation is located between Preston and Fall City Washington. The site shares its position along the Raging River with residents from both communities.





## REGULATORY COMPLIANCE

ERP is committed to adhering to all King County Department of Transportation, King County Department of Permitting and Environmental Review, Washington State Department of Transportation, and any Mining Safety and Health Administration (MSHA) regulatory standards. The standard operating procedures (SOPs) and design plans outlined in this document satisfy all requirements set forth by any regulatory agencies that administer policy and or have direct oversight governing site operations.

#### KING COUNTY PERMIT CONDITIONS DATED:

## Engineering - Site

#### **Clearing and Grading Conditions**

**CG-5:** Permittee shall be responsible for implementing all appropriate measures needed (i.e paving, sweepers, and or other techniques) to keep streets and roads used as haul routes for export or import of materials clean and free from debris, mud, etc. Rocked construction entrances shall be installed where ever equipment, trucks, etc., will be running from disturbed areas to pavement on existing roads.



## DEBRIS ACCUMULATION ACTION LEVELS

#### LEVEL O: PREVENTION CONTROLS

ERP utilizes several engineering and administrative controls to prevent debris accumulation of material onto Carmichael Road. These controls will be closely monitored and maintained by the ERP Quarry Manager and onsite personnel, and are continuously evaluated for effectiveness.

Below are listed the ERP debris accumulation prevention controls:

- Carmichael Road Surface Paved from Preston-Fall City Road to Scale House (approx. 700' 16,000ft^2)
- Scale House, Loading Area, and Active Mining Area Capped with 1 ¼ clear (free of aggregate smaller than ½") or equivalent material. (approx. 1500' 44,000ft^2)
- Weather Forecast Monitoring by ERP staff
- Visual Road Surface Condition Monitoring by ERP Staff
- Daily Sweeping with CAT246D Skidsteer with Broom Attachment
- Use of Contracted Sweeping Service
- Use of Water Truck Service
- Intermittent 4"x8" Quarry Spall Rock Sections for Scrubbing Truck Tires
- Scrubbing of Scale to Remove Buildup of Material
- Haul Traffic Limited to 10mph

#### LEVEL 1: AGGREGATE ROAD SURFACE DEBRIS ACCUMULATION IN PIT

Daily maintenance of roadway areas will prevent over-accumulation of debris on roadway surfaces under normal operating conditions. In addition to maintaining road surfaces, drainage systems are kept fully functional to prevent accumulation of standing water which can contribute to muddier conditions.

- Daily Maintenance of Roadways, Including Supplemental Clean Aggregate Surface Application
- Cleaning of Excess Material from Roadway with Flat-Edge Loader Bucket
- Maintenance of Quarry Drainage System to Prevent/Reduce Standing Water



## LEVEL 2: AGGREGATE ROAD SURFACE DEBRIS ACCUMULATION NEAR SCALEHOUSE

During the wet season, or periods of excessive precipitation, roadway surfaces may be more difficult to maintain. Intermittent sections of quarry spalls will be used to create road rock sections that "scrub" haul traffic tires prior to exiting the quarry. Quarry spalls ranging from four to eight inches are most effective for this process. Spalls sections will be located before and after the quarry scale for use of loaded exiting traffic prior to entrance to Carmichael Road, and intermittently throughout the pit haul road as needed. These sections of quarry spalls can be maintained by removal of old spalls as needed and re-stocking of fresh crushed spalls.

- 4"x8" Quarry Spalls Pads installed before and after scale
- 4"x8" Quarry Spalls Pads Installed intermittently on haul roads within the quarry
- Regular removal of old spalls and re-stocking of fresh spalls

#### LEVEL 3: TRUCK SCALE SURFACE DEBRIS ACCUMULATION

When debris accumulation presents past the initial quarry spall sections and begins to show on the quarry scale, the last measure of debris accumulation prevention can be utilized. Using the sites 246D CAT Skidsteer with a broom attachment, the scale will be regularly scrubbed to remove any accumulation of debris present on the scale surface. This will prevent haul traffic from picking up material off of the scale and transmitting it out of the pit.

• CAT246D Skidsteer with Broom Attachment

#### LEVEL 4: CARMICHAEL ROAD DEBRIS ACCUMULATION

When all preventive measures cannot fully prevent debris from reaching Carmichael Road, then additional measures will be utilized to ensure the surface of Carmichael road is maintained continuously in order to prevent debris from reaching Preston-Fall City Road. Several pieces of equipment and contracted services will be used in combination to ensure that any debris accumulation on Carmichael road is continuously monitored and corrected.

- CAT246D Skidsteer with Broom Attachment (onsite)
- Contracted Sweeping Services
- Water Truck Service through Water Buffalo LLC
- Manual brushing off of truck tires on the scale



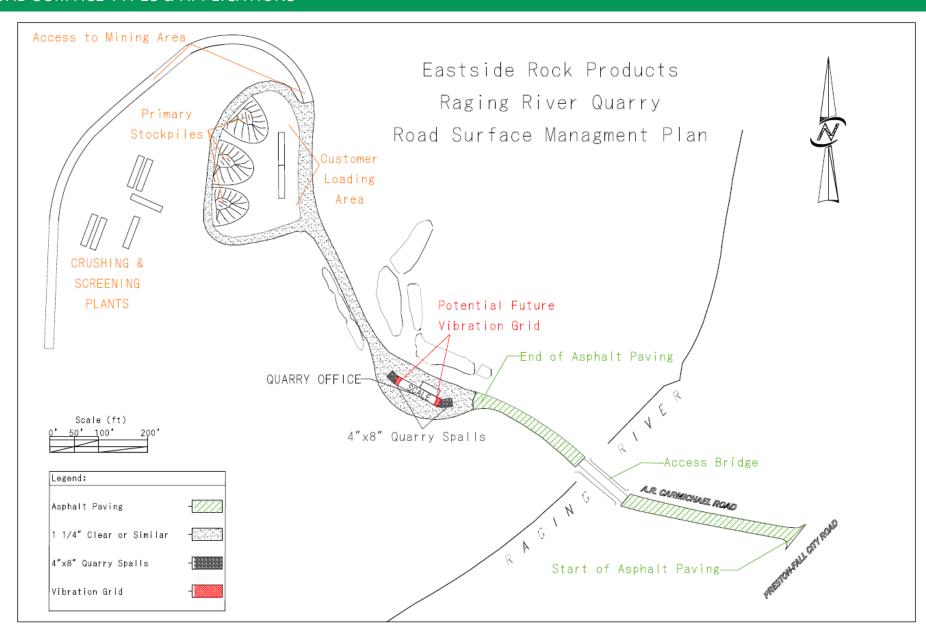
## LEVEL 4: CARMICHAEL ROAD DEBRIS ACCUMULATION (FUTURE CONTROLS)

In addition to already in-place debris accumulation controls, additional options have been identified if currently provided engineering and administrative controls are inadequate.

- Further addition of quarry spalled sections around in pit haul roads for tire scrubbing
- Installation of Vibration Grids Adjacent to scale
- Installation of Rumble Strips on quarry haul road



# **ROAD SURFACE TYPES & APPLICATIONS**





Any further questions, comments, or considerations should be relayed to The Raging River Quarry Manager:

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