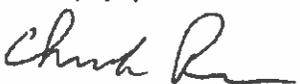
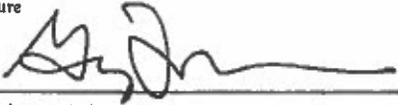


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WASHINGTON STATE DEPARTMENT OF
Natural Resources

COUNTY OR MUNICIPALITY
APPROVAL FOR
SURFACE MINING
(Form SM-6)

COMPANY OR INDIVIDUAL APPLICANT(S) Name as name of the exploration permit holder. (Type or print in ink.) Pacific Rock Products, LLC		TOTAL ACREAGE AND DEPTH OF PERMIT AREA (Include all acreage to be disturbed by mining, setbacks, and buffers, and associated activities during the life of the mine.) (See SM-8A.) Total area permitted will be <u>52</u> acres Maximum vertical depth below pre-mining topographic grade is <u>68</u> feet Maximum depth of excavated mine floor is <u>216</u> feet relative to mean sea level:																											
MAILING ADDRESS 8705 NE 117th Avenue Vancouver, WA 98662		COUNTY <u>Clark</u> No attachments will be accepted. Legal description of permit area:																											
Telephone 360-254-7770		<table border="1"> <thead> <tr> <th>1/4</th> <th>1/4</th> <th>Section</th> <th>Township</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td>NE</td> <td>NW</td> <td>31</td> <td>2N</td> <td>3EWM</td> </tr> <tr> <td>NW</td> <td>NE</td> <td>31</td> <td>2N</td> <td>3EWM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			1/4	1/4	Section	Township	Range	NE	NW	31	2N	3EWM	NW	NE	31	2N	3EWM										
1/4	1/4	Section	Township	Range																									
NE	NW	31	2N	3EWM																									
NW	NE	31	2N	3EWM																									
Proposed subsequent use of site upon completion of reclamation <p>The proposal consists of regrading the 52-acre Reeb's Parr property for mine closure. No new mining is proposed, only regrading of the site. The property will join the surrounding Columbia Tech Center (CTC) mixed-use development in East Vancouver.</p>																													
Signature of company representative or individual applicant(s) 		Name and title of company representative (please print) Chuck Rose - Aggregates Manager		Date signed 8/19/16																									
TO BE COMPLETED BY THE APPROPRIATE COUNTY OR MUNICIPALITY																													
Please answer the following questions 'yes' or 'no'. 1. Has the proposed surface mine been approved under local zoning and land-use regulations? 2. Is the proposed subsequent use of the land after reclamation consistent with the local land-use plan/designation?				<table border="1"> <thead> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Yes	No	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																			
Yes	No																												
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When complete, return this form to the appropriate Department of Natural Resources regional office.																													
Name of planning director or administrative official (please print) GREG TURNER		Address GREG TURNER CITY OF VANCOUVER - CEDD PO BOX 1995 VANCOUVER WA 98668-1995																											
Signature 																													
Title (please print) LAND USE MANAGER																													
Telephone 360-487-7883	Date 8-22-16	DNR Reclamation Permit No. 13027																											



**APPLICATION FOR
RECLAMATION PERMIT
(Form SM-8A)**

Check appropriate box(es): new permit revision of existing permit transfer of permit expansion

NOTE: Do not attempt to complete this form until you have carefully read "Instructions for Form SM-8A".

1. NAME OF APPLICANT/PERMIT HOLDER(S) Applicant – Pacific Realty Associates, L.P. (Permit Holder – Pacific Rock Products, LLC)				
2. MAILING ADDRESS Applicant contact: Matt Oyen Applicant: 15350 SW Sequoia Parkway Suite 300, Portland, OR 97224 (Permit Holder: 8705 NE 117th Avenue, Vancouver, WA 98662)				
3. Telephone (503) 624-6300		Email matto@pacrust.com		
4. NAME OF MINE Reebs Parr				
5. Street address and milepost of surface mine between 18001 and 18515 SE 1st Street, Vancouver, WA, 98683				
6. Distance (miles) 8.6 to city center	7. Direction from East	8. Nearest community within Vancouver limits		
9. COUNTY Clark No attachments will be accepted. Legal Description of permit area:				
1/4	1/4	Section	Township	Range
NW	NE	31	2N	3E
NE	NW	31	2N	3E
10. TOTAL ACREAGE OF PERMIT AREA APPLIED FOR: (Include all acreage to be permitted. See Form SM-6.) <u>52</u> acres				
11. Do you or any person, partnership, or corporation associated with you now hold, or have you held, a surface mining operating or reclamation permit? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no If you answered yes to the above, please list:				
Permit Number	Active Operation?		Reclamation current/complete?	
	Yes	No	Yes	No
See attached list for permit holder; applicant has no history of holding mine permits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all of these mines now in compliance with RCW 78.44, WAC 332-18, and conditions of the permits? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no				
13. Have you ever had a surface mine operating or reclamation permit revoked? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no Have you ever had a reclamation security forfeited? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no If you answered yes to either of the above, give permit number(s):				
14. Type of proposed or existing mine: <input checked="" type="checkbox"/> pit <input type="checkbox"/> quarry Material(s) to be mined: <input checked="" type="checkbox"/> sand and gravel <input type="checkbox"/> rock or stone <input type="checkbox"/> clay <input type="checkbox"/> metal <input type="checkbox"/> limestone <input type="checkbox"/> silica <input type="checkbox"/> other				

Deposit type: <input type="checkbox"/> glacial <input checked="" type="checkbox"/> river floodplain (alluvial) <input type="checkbox"/> river channel deposits <input type="checkbox"/> talus <input type="checkbox"/> bedrock <input type="checkbox"/> lode <input type="checkbox"/> unknown <input type="checkbox"/> other	
15. Total disturbed acreage and maximum depth of permit area: (Include all acreage to be disturbed by mining and reclamation during the life of the mine.) Total area to be disturbed: <u>52</u> acres. Area to be disturbed in next 36 months: <u>none</u> acres. (mine closure) Maximum vertical depth (thickness) mined below pre-mining topographic grade will be <u>approximately 64</u> feet. Lowest elevation of excavated mine will be <u>220</u> feet relative to mean sea level. Highest elevation of excavated mine will be <u>284</u> feet relative to mean sea level.	
16. Expected start date of mining: None – seeking mine closure	17. Estimated number of years: 1 to 2
18. Total quantity to be mined over life of mine (estimated): N/A <input type="checkbox"/> tons or <input checked="" type="checkbox"/> cu yds	19. Estimated annual production: N/A <input type="checkbox"/> tons or <input type="checkbox"/> cu yds
20. Subsequent land use: <input checked="" type="checkbox"/> industrial <input checked="" type="checkbox"/> commercial <input type="checkbox"/> residential <input type="checkbox"/> agricultural <input type="checkbox"/> forestry <input type="checkbox"/> wetlands and lakes <input type="checkbox"/> other Reclaimed elevation of floor of mine: <u>235 - 250</u> feet relative to mean sea level Reclaimed elevation is shown on cross sections? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Subsequent land use is compatible with County or Municipal comprehensive plan? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no County or Municipality Approval for Surface Mining (Form SM-6) attached? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no SEPA Checklist required? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no If any answers are no, explain:	
21. Application fee for a new reclamation permit is herewith attached? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	

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APPLICATION FOR RECLAMATION PERMIT

22. SEGMENTAL RECLAMATION	
Permit area has been divided into segments for mining and a mining schedule has been developed?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If no, explain: Mining is complete at the site.	
Permit area has been divided into segments for reclamation and a reclamation schedule has been developed?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
23. SITE PREPARATION	
23A. Permit and Disturbed Area Boundaries	
Boundary of the permit area has been marked on the ground with permanent boundary markers?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Explain boundary markers: Chain link fence along the northern and eastern boundaries and berms/topographic highs along eastern and southern boundaries. Reclamation of site has removed berms/highs on western and southern boundaries. Future reclamation will remove berms along eastern boundary.	
23B. Saving Topsoil, Subsoil, and Overburden for Reclamation	
Thickness of topsoil is <u>N/A</u> * feet	Thickness of subsoil is <u>N/A</u> * feet
Total volume of topsoil is <u>N/A</u> * cubic yards	Total volume of subsoil is <u>N/A</u> * cubic yards
Volume of stored topsoil/subsoil is <u>N/A</u> * cubic yards and will require <u>N/A</u> * acres for storage.	*Refer to Narrative
Storage areas are shown on maps and have been marked on the ground with permanent boundary markers?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Topsoil will be salvaged?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If no, explain: Salvaged topsoil has already been placed on some site slopes and seeded for reclamation.	
Topsoil and overburden will be moved to reclaim an adjacent depleted segment?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain: Mining is complete, site reclamation underway.	
Before materials are moved, vegetation will be cleared and drainage planned for soil storage areas?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If no, explain: Soil was not stored per se. It was placed on bare, regraded slopes for reclamation.	
Soil storage areas will be stabilized with vegetation to prevent erosion if materials will be stored for more than one season?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain: Reclaimed slopes that received topsoil were seeded after soil placement.	
23C. Setbacks and Screens	
The setback for this site will be <u>0</u> feet wide. The permanent setback for the site is zero feet along all boundaries. All boundaries are within the greater CTC development or have been mined as permitted.	
Is a permanent, undisturbed buffer planned for this site?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain: There is a permanent one-foot buffer along SE 1st Street for a guard rail.	
Setbacks are shown on maps and have been marked on the ground with permanent boundary markers?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
Does this site have a backfilling plan that addresses the protection of adjacent property and how the final, stable slopes are to be achieved?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain: The final slopes will be cut into in-situ material.	
23D. Buffers to Protect Streams and Flood Plains	
A stream buffer of at least 200 feet has been marked on the ground with permanent boundary markers?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If yes, see "Additional Requirements for Mines in Flood Plains" in "Instructions for SM-8A".	
A buffer of at least 200 feet from the 100-year flood plain has been marked on the ground with permanent boundary markers?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If no, explain: No floodplain on or near the site.	
Copy of Shoreline Permit from local government or the Department of Ecology is attached?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Hydraulic Project Approval from the Department of Fish and Wildlife is attached?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

APPLICATION FOR RECLAMATION PERMIT

23E. Conservation Buffers	
Conservation buffers will be established for the following purpose(s): <i>(Check all that apply)</i>	
<input type="checkbox"/> unstable slopes <input type="checkbox"/> wildlife habitat <input type="checkbox"/> water quality <input type="checkbox"/> other	
Describe the nature and configuration of the conservation buffer(s): <i>N/A</i>	
Conservation setbacks are shown on maps and have been marked on the ground with permanent boundary markers? <i>N/A</i> <input type="checkbox"/> yes <input type="checkbox"/> no	
23F. Ground Water	
High water table depth is <u>215</u> feet <input checked="" type="checkbox"/> relative to mean sea level, <input type="checkbox"/> below original surface, or <input type="checkbox"/> unknown.	
Low water table depth is <u>210</u> feet <input checked="" type="checkbox"/> relative to mean sea level, <input type="checkbox"/> below original surface, or <input type="checkbox"/> unknown.	
Annual fluctuation of water table is from _____ feet on _____ to _____ feet on _____. Refer to narrative, Reeb's Parr Hydrogeologic Study (EnviroData Solutions, Inc., 2002), English Pit Hydrogeologic Study (H ₂ O Data Inc., 1996), and Comprehensive Geotechnical Engineering Report, English Pit Reclamation/Closure (GeoDesign, Inc., 2006) filed with previous mine permit applications.	
Direction of ground water flow: <u>NW</u>	
Are well logs attached? They are included in the aforementioned Reeb's Parr Hydrogeologic Study. <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
Is the aquifer perched? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
The shallowest aquifer is <input type="checkbox"/> confined <input checked="" type="checkbox"/> unconfined?	
The site will be mined: <input type="checkbox"/> wet <input checked="" type="checkbox"/> dry <input type="checkbox"/> both	
Describe mining method: The cut method of mining was utilized.	
The site is in a: <i>N/A</i>	
<input type="checkbox"/> critical aquifer recharge area <input type="checkbox"/> sole source aquifer <input type="checkbox"/> public water supply watershed <input type="checkbox"/> wellhead protection area <input type="checkbox"/> special protection area <input type="checkbox"/> designated aquifer protection area	
It should be noted that the shallowest aquifer underlying the site is a perched aquifer not utilized for water supply in the site vicinity. The water supply aquifer is the Troutdale Formation located at greater depths.	
Ground water study attached? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	
<i>If yes, see "Additional Requirements for Mines in Hydrologically Sensitive Areas" in "Instructions for SM-8A".</i>	
<i>If no, explain: The studies referenced above have been submitted to DNR for previous permitting at the site, most recently in 2008 for expansion of the mine.</i>	
23G. Archeology	
Are archeological/cultural resource sites present? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	
If yes, describe how you will protect these resources:	
24. MINING PRACTICES TO FACILITATE RECLAMATION	
24A. Soil Replacement	
Topsoil will be saved? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	
If no, explain: No native topsoil remains in place due to mining.	
Up to 4 feet of topsoil and (or) subsoil will be restored? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	
If "yes" give details. If "no", explain: In-situ materials in reclaimed slopes have demonstrated sufficient rooting medium for revegetation with grasses. The backfilled floor will not receive topsoil because it is incompatible with the subsequent use.	
Topsoil will be restored and seedbeds prepared as necessary to promote effective revegetation and to stabilize slopes and mine floor? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
If "yes" give details. If "no", explain: A rooting medium for revegetation will be established on the slopes but not the mine floor.	
Subsoil will be replaced to an approximate depth of <u>0</u> feet on the pit floor and a depth of <u>0</u> feet on slopes.	
Topsoil will be replaced to an approximate depth of <u>0</u> feet on the pit floor and a depth of <u>0</u> feet on slopes.	

APPLICATION FOR RECLAMATION PERMIT

Topsoil will be distributed evenly over the site? If no, explain: The subsequent use does not require application of topsoil to the mine floor. A rooting medium for revegetation will be established on the slopes.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If topsoil is in short supply, it will be strategically placed in depressions and low areas in adequate thickness to conserve moisture and promote revegetation? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil will be moved when conditions are not overly wet or dry? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil will be imported? If yes, describe source. If no, explain: Seeding reclaimed slopes on in-situ materials has demonstrated they provide sufficient rooting medium to support grasses for revegetation goals.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Synthetic topsoil made from compost, biosolids, or other amendments will be used and (or) made on site to supplement existing topsoil?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Materials such as till, loess, and (or) silt are available on site that could be used to supplement topsoil for reclamation. If yes, explain: Silty soils are on site and could be used to supplement topsoil.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Silt from settling ponds or a filter press will be used for reclamation? Processing fines are on site and could be used to supplement topsoil.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Settling pond clay slurries will be pumped or hauled to other segments for reclamation? If yes, explain:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Topsoil will be replaced with equipment that will minimize compaction, or it will be plowed, disked, or ripped following placement? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil will be immediately stabilized with grasses and legumes to prevent loss by erosion, slumping, or crusting? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil stockpile areas are shown on maps and will be marked on the ground with permanent boundary markers to protect from loss? If no, explain: Remaining topsoil after mining has already been placed on slopes for reclamation.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Segmental topsoil removal and replacement is shown on maps? If no, explain: Per reclamation phasing shown on figures. The subsequent use does not require application of topsoil to the mine floor. A rooting medium for revegetation will be established on the slopes.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Topsoil salvage and replacement plan included? If no, explain: No in-situ topsoil remains on site from previous mining. Remaining topsoil after mining has already been placed on slopes for reclamation.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
24B. Removal of Vegetation	
Vegetation will be removed sequentially from areas to be mined to prevent unnecessary erosion? If no, explain: N/A	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Small trees and other transplantable vegetation will be salvaged for use in revegetating other segments? If yes, give details. If no, explain: N/A	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Wood and other organic debris will be: <input type="checkbox"/> recycled <input type="checkbox"/> removed from site <input type="checkbox"/> chipped <input type="checkbox"/> burned <input type="checkbox"/> buried <input type="checkbox"/> used to synthesize topsoil or mulch <input checked="" type="checkbox"/> other (explain) No wood or organic debris on site.	
Solid waste disposal, burning, and land use permits are attached?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

APPLICATION FOR RECLAMATION PERMIT

Some coarse wood (logs, stumps) and other large debris will be salvaged for fish and wildlife habitats? If yes, give details. If no, explain: No coarse wood or other large debris on site.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
24C. Erosion control for Reclamation	
Pit floor will slope at gentle angles toward highwall, sediment retention pond, or proper drainage? If yes, give details. If no, explain: Refer to narrative and figures.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Revegetation, sheeting, and (or) matting will be used to protect areas susceptible to erosion? If yes, give details. If no, explain: Revegetation will occur on the slopes above the mine floor. Revegetation of the floor is not compatible with subsequent use.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Water control systems used for erosion control during segmental reclamation will:	
Divert clean water around pit?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Trap sediment-laden runoff before it enters a stream? <i>N/A</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Result in essentially natural conditions of volume, velocity, and turbidity?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Handle a 25-year, 24-hour peak event?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
(Have you attached calculation?) See section 25G. for calculation	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Be removed or reclaimed?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If any answers are no, explain: Water control systems will remain at final reclamation in order to continue proper conveyance of water to infiltration areas. Based on historical observations, an infiltration ditch in the southeastern area of the site and exposed in-situ sand and gravel around the site perimeter sufficiently contain and infiltrate stormwater, including intense storms during the most recent 2015-2016 wet season.	
Will any water control systems be removed upon final reclamation? If yes, explain:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Water control measure will be established to prevent erosion of setbacks and neighboring properties? If yes, give details. If no, explain: All stormwater will be contained within the mine disturbance, refer to narrative and figures.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Storm-water conveyance ditches and channels will be lined with vegetation or riprap? If yes, give details. If no, explain: Stormwater will be contained on-site at final reclamation and directed to an infiltration ditch in the southeastern site area.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Natural and other drainage channels will be kept free of equipment, wastes, stockpiles, and overburden? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
25. RECLAMATION TOPOGRAPHY	
25A. Final Slopes	
Final slopes will be created using the cut-and-fill method? Explain procedure to be used: Final slopes have been mined using the cut method. Grading will require minor cutting and filling to attain final topography.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Slopes will be created by mining to the final slope using the cut method? Explain procedure to be used: Mined slopes have been created using the cut method.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Slopes will vary in steepness? If no, explain: Varying steepness is not compatible with subsequent use.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Slopes will have a sinuous appearance in both profile and plan view? If no, explain: Varying sinuosity is not compatible with subsequent use.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Large rectilinear (that is, right angle, or straight, planar) areas will be eliminated? If no, explain: Large rectilinear areas are compatible with the subsequent use.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Where reasonable, tracks of the final equipment pass will be preserved and oriented to trap moisture, soil, and seeds, and to inhibit erosion? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no

APPLICATION FOR RECLAMATION PERMIT

25B. Slope Requirements for Pits and Overburden/Waste Rock Dumps (non-saleable products)	
<i>If the mine is a quarry or in hard rock, skip to Quarry section (25C).</i>	
Slopes will vary between 2 and 3 feet horizontal to 1 foot vertical or flatter, except in limited areas where steeper slopes are necessary to create sinuous topography and control drainage? If no, explain: Varying degrees of slope are not compatible with subsequent use. Slopes will uniformly be approximately 2H:1V.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
For pits, slopes will not exceed 2 feet horizontal to 1 foot vertical except as necessary to blend with adjacent natural slopes? Give details: Final slopes will be approximately 2H:1V and will be cut into in-situ material.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Slope stability analysis required? <i>If yes, see "Additional Requirements for Mines with Steep or Potentially Unstable Slopes" in "Instructions for SM-8A".</i> Slope stability analysis provided by	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
25C. Slope Requirements for Quarries and Hardrock Metal Mines	
<i>If mine is a pit in unconsolidated materials covered by Section 25B, go to Section 25D</i>	
Check the appropriate box(es)	
<input type="checkbox"/> Slopes will not exceed 2 feet horizontal to 1 foot vertical.	
<input type="checkbox"/> Slopes steeper than 1 foot horizontal to 1 foot vertical are an acceptable subsequent land use as confirmed on Form SM-6.	
<input type="checkbox"/> Hazardous slopes or cliffs are indigenous to the immediate area and already present a potential threat to human life. Photo and maps attached to document presence of cliffs.	
<input type="checkbox"/> Geologic or topographic characteristics of the site preclude slopes being reclaimed at a flatter angle and are an acceptable subsequent land use as confirmed on Form SM-6.	
Slope stability analysis required? <i>If yes, see "Additional Requirements for Mines with Steep or Potentially Unstable Slopes" in "Instructions for SM-8A".</i> Slope stability analysis provided by	<input type="checkbox"/> yes <input type="checkbox"/> no
Measures will be taken to limit access to the top and bottom of hazardous slopes? Describe measures, or if no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural? Describe procedures, or if no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Reclamation blasting will be used to reduce the entire highwall to a scree or rubble slope less than 2 feet horizontal to 1 foot vertical? Blasting plan is attached? If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Access to benches will be maintained for reclamation blasting? If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Small portions of benches will be left to provide habitat for raptors and other cliff-dwelling birds?	<input type="checkbox"/> yes <input type="checkbox"/> no
25D. Backfilling	
Slopes will require backfilling? Depth of backfilling is 15 to 30 feet. Floor will be backfilled this depth, but slopes above the reclaimed floor will be mostly cut into in-situ materials with only minor filling where required to meet cut slopes within boundaries. Slope stability compaction analysis required? Slope stability analysis not needed, but compaction of fill will be observed by a geotechnical engineer. Compaction analysis provided by GeoDesign, Inc.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Backfilling plan and (or) permits are attached? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no

APPLICATION FOR RECLAMATION PERMIT

Backfilling will be done with overburden material after topsoil has been separated? If no, describe composition and source of backfill material: As described in Section 4.4 of the narrative. Explain method of placement of fill: As described in Section 4.3 of the narrative.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Locations of stockpiles are shown on maps and will be marked on the ground with permanent boundary markers?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Will backfill be imported? If yes, give volumes needed to meet reclamation plan: 539,000 cubic yards	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Areas to be backfilled are shown on maps? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
All grading/backfilling will be done with clean, inert, non-organic solids? If yes, give details. If no, explain: Refer to Importation Plan and Clean Soil Policy, Section 4.4 of the narrative.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Backfilled slopes will be compacted? If yes, give details. If no, explain: Fill will be placed in shallow lifts and compacted with truck traffic and tracked dozers to achieve sufficient compaction.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Will you be backfilling into water? If yes, is slope stability analysis attached? If yes, describe method:	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no
25E. Mine Floors	
Flat areas will be formed into gently rolling mounds? If yes, give details. If no, explain: Subsequent use benefits from near-planar pit floor surfaces. Final grading will direct drainage to the infiltration areas.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Mine floor will be gently graded into sinuous drainage channels to preclude sheetwash erosion during intense precipitation? If yes, give details. If no, explain: Sinuous drainage channels do not compliment the subsequent use.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Mine floor and other compacted areas will be bulldozed, plowed, ripped, or blasted to foster revegetation? If yes, give details. If no, explain: Does not compliment the subsequent use.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
25F. Lakes, Ponds, and Wetlands	
Is water currently present in the area or will the mining penetrate the water table? If no, go to Section 25G.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Reclaimed areas below the permanent low water table in soil, sand, gravel, and other unconsolidated material will have a slope no steeper than 1.5 feet horizontal to 1 foot vertical? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
If not already present, soils, silts, and clay-bearing material will be placed below water level to enhance revegetation? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Some parts of pond and lake banks will be shaped so that a person can escape from the water?	<input type="checkbox"/> yes <input type="checkbox"/> no
Armored spillways or other measures to prevent undesirable overflow or seepage will be provided to stabilize bodies of water and adjacent slopes? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Wildlife habitat will be developed, incorporating such measures as:	
Sinuous and irregular shorelines?	<input type="checkbox"/> yes <input type="checkbox"/> no
Varied water depths?	<input type="checkbox"/> yes <input type="checkbox"/> no
Shallow areas less than 18 inches deep?	<input type="checkbox"/> yes <input type="checkbox"/> no
Islands and peninsulas?	<input type="checkbox"/> yes <input type="checkbox"/> no
Give details:	

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Ponds or basins will:	
Be located in stable areas?	<input type="checkbox"/> yes <input type="checkbox"/> no
Have sufficient volume for expected runoff?	<input type="checkbox"/> yes <input type="checkbox"/> no
Have an emergency overflow spillway?	<input type="checkbox"/> yes <input type="checkbox"/> no
Spillways and outfalls will be protected (for example, rock armor) to prevent failure and erosion?	<input type="checkbox"/> yes <input type="checkbox"/> no
If any answers are no, explain:	
Proper measures will be taken to prevent seepage from water impoundments that could cause flooding outside the permitted area or adversely affect the stability of impoundment dams or adjacent slopes?	
If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Written approval from other agencies with jurisdiction to regulate impoundment of water is attached?	
If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
25G. FINAL DRAINAGE CONFIGURATION	
Drainage will be capable of carrying the peak flow of the 25-year, 24-hour precipitation event? <i>(Data are available at DNR Region offices)</i>	
If yes, are calculations attached?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, give details. If no, explain: At completion of reclamation, stormwater will be contained within the disturbance boundary of the property to collect on the backfilled floor and flow to a swale in the southern portion of the site that further directs stormwater to an infiltration ditch in the SE corner of the property (Figure 5). GeoDesign performed infiltration tests for the Clark College extension located immediately south of Reeb's Parr into the native sand and gravel. Infiltration rates ranged from 120 to over 1,000 inches per hour. The ditch is ~ 15 feet wide and 700 feet long. Considering the lowest tested infiltration rate: 700 x 15 x 10 ft per hour = 2,520,000 cubic feet over a 24-hour interval. The 25-year, 24-hour storm for the site area is 3.9 inches per NOAA Atlas 2. Considering the entire 52-acre permit boundary: 52 acres x 3.9 inches = 736,164 cubic feet of water. Thus, the infiltration capacity is 3.4 x's the design storm volume of water.	
Drainages will be constructed on each reclaimed segment to control surface water, erosion, and siltation?	
Clean runoff is directed to a safe outlet?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If either yes, give details. If no, explain: The very gentle slope of the backfilled floor precludes the need for erosion-preventing drainages. At completion of reclamation, the site will contain all of its own stormwater and direct it to the infiltration ditch in the southeastern corner of the property.	
Are these shown on maps?	
The grade of ditches and channels will be constructed to limit erosion and siltation?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, give details. If no, explain: No channels planned.	
Natural-appearing drainage channels will be established upon reclamation?	
If yes, give details. If no, explain: Drainage channels do not compliment the subsequent use.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
26. SITE CLEANUP AND PREPARATION FOR REVEGETATION	
26A. Dealing with Hazardous Materials	
Hazardous materials are present at the mine site?	
If no, go to Section 26B	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
The final ground surface drains away from any hazardous natural materials?	
If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Plan for handling hazardous mineral wastes indigenous to the site is attached?	
If no, written approval from all appropriate solid waste regulatory agencies attached?	<input type="checkbox"/> yes <input type="checkbox"/> no
26B. Removal of Debris	
All debris (garbage, 'bone piles', treated wood, old mining equipment, etc.) will be removed from the mine site? <i>N/A</i>	
All sheds, scale houses, and other structures will be removed from the site? <i>N/A</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If either answer is yes, give details. If no, explain: No debris on site. All mining equipment was removed.	

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27. REVEGETATION	
The mine site is in: <input type="checkbox"/> eastern Washington <input checked="" type="checkbox"/> western Washington	The mine site is: <input type="checkbox"/> wet <input checked="" type="checkbox"/> dry?
The average precipitation is 45-55 inches per year.	
Revegetation will start during the first proper growing season (fall for grasses and legumes, fall or late winter for trees and shrubs) following restoration of slopes? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
If yes, give details. If no, explain: Revegetation is to take place only on slopes and applied as soon as possible for erosion control.	
Test plots will be used to determine optimum vegetation plans? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	
The site will not be revegetated because:	
<input type="checkbox"/> It is a rural area with a rainfall exceeding 30 inches annually and erosion will not be a problem (requires approval of DNR).	
<input type="checkbox"/> Demonstration plots and areas will be used to show that active revegetation is not necessary.	
<input checked="" type="checkbox"/> Revegetation is inappropriate for the approved subsequent use of this surface mine.	
Explain: Subsequent use of the site is urban – only the slopes will be revegetated. Refer to the narrative.	
Documentation is attached? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	
27A. Recommended Pioneer Species	
In the Sections below, check the species that will be planted at your mine site: <i>* indicates nitrogen-fixing species</i>	
Western Washington Dry Areas	
<input checked="" type="checkbox"/> alfalfa*	<input type="checkbox"/> lupine*
<input type="checkbox"/> cereal rye	<input type="checkbox"/> perennial rye
<input type="checkbox"/> creeping red fescue	<input type="checkbox"/> red alder*
<input checked="" type="checkbox"/> ground cover	<input type="checkbox"/> shrubs
<input checked="" type="checkbox"/> clover*	<input checked="" type="checkbox"/> orchard grass
<input type="checkbox"/> colonial bent grass	<input type="checkbox"/> ponderosa pine
<input type="checkbox"/> Douglas fir	<input type="checkbox"/> shore pine
<input checked="" type="checkbox"/> other Refer to the Revegetation Plan section of the narrative.	
Western Washington Wet Areas	
<input type="checkbox"/> birdsfoot trefoil	<input type="checkbox"/> sedges
<input type="checkbox"/> cottonwood	<input type="checkbox"/> wetland grasses
<input type="checkbox"/> red alder*	<input type="checkbox"/> other
<input type="checkbox"/> cedar	<input type="checkbox"/> tubers
<input type="checkbox"/> creeping red fescue	<input type="checkbox"/> willow
Eastern Washington Dry Areas	
<input type="checkbox"/> alder*	<input type="checkbox"/> grasses
<input type="checkbox"/> black locust	<input type="checkbox"/> lodgepole pine
<input type="checkbox"/> deciduous trees	<input type="checkbox"/> ponderosa pine
<input type="checkbox"/> diverse evergreens	<input type="checkbox"/> other
<input type="checkbox"/> alfalfa*	<input type="checkbox"/> juniper
<input type="checkbox"/> clover	<input type="checkbox"/> lupine*
<input type="checkbox"/> shrubs	<input type="checkbox"/> deep-rooted ground cover
Eastern Washington Wet Areas	
<input type="checkbox"/> alder*	<input type="checkbox"/> cottonwood
<input type="checkbox"/> serviceberry	<input type="checkbox"/> tubers
<input type="checkbox"/> other	<input type="checkbox"/> poplar
<input type="checkbox"/> willow	<input type="checkbox"/> sedges
Give planting details (stems/acres of trees and shrubs, see <u>Forest Practices manual</u> ; lbs/acre of grass, legume, or forb mixture): Refer to the Revegetation section of the narrative. Seed at 50 pounds per acre, broadcast (including hydroseed, etc.)	
Describe weed control plan: Control deleterious vegetation as necessary.	

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27B. Planting Techniques

Revegetation at this site will require:

- | | | |
|--|---|--|
| Ripping and tilling? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no |
| Blasting to create permeability? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no |
| Mulching? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no |
| Irrigation? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no |
| Fertilization? 200 pounds per acre of 12-24-24 or comparable blend (broadcast). | <input checked="" type="checkbox"/> yes | <input type="checkbox"/> no |
| Importation of clay- or humus-bearing soils? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no |
| Other soil conditioners or amendments? | <input type="checkbox"/> yes | <input checked="" type="checkbox"/> no |
- Give details: **Refer to the narrative.**

Trees and shrubs will be planted in topsoil or in subsoil amended with generous amounts of organic matter? yes no
 If yes, give details. If no, explain: **No trees and shrubs are required in the revegetation plan.**

Mulch will be piled around the base of trees and shrubs? yes no
 High quality stock will be used? yes no
 Trees and shrubs will be planted while they are dormant? yes no
 Stock will be properly handled, kept cool and moist, and planted as soon as possible? yes no
 Seeds will be covered with topsoil or mulch no deeper than one-half inch? yes no
 If any answers are no, explain: **No trees and shrubs are required in the revegetation plan.**

28. FINAL CHECKLIST

All required maps are attached? (See "Instructions for SM-8A" for detailed requirements.) yes no

All required cross sections are attached? (See "Instructions for SM-8A" for detailed requirements.) yes no

Geologic map attached (if required)? (See "Instructions for SM-8A" for detailed requirements.) yes no

All documents submitted have the date, the name and address of the permit holder, and the application number on every page of the material? yes no

The plan contains predominantly relevant information? yes no

Have you completed the SM-6 and has it been signed by the local jurisdiction? yes no

Have you provided the SEPA checklist? yes no

Have you provided a copy of the SEPA determination (DNS, MDNS, or DS)? **DNR is SEPA lead for this application. The City (and previously the County) has been SEPA lead for previous applications and for grading proposals on adjacent parcels. Relevant documents including DNS letters are attached to this application. Refer to narrative for discussion.** yes no

Have you attached photographs? yes no

Are additional supplemental studies included? yes no

If yes, check the appropriate box(es) below:

- | | | | |
|--|--|--|--|
| <input type="checkbox"/> Archeological | <input type="checkbox"/> Geohydrologic | <input checked="" type="checkbox"/> Backfill | <input type="checkbox"/> Slope stability |
| <input type="checkbox"/> Topsoil | <input type="checkbox"/> Flood plain | <input type="checkbox"/> Conservational | <input type="checkbox"/> Vegetation |
| <input type="checkbox"/> Other | | | |

Other permits required? yes no

If yes, check the appropriate box(es) below:

- | | | |
|--|---|---|
| <input type="checkbox"/> Shoreline Permit | <input type="checkbox"/> Water Discharge Permit | <input type="checkbox"/> Solid Waste Permit |
| <input type="checkbox"/> Air Quality Permit | <input type="checkbox"/> NPDS or General Discharge Permit | <input type="checkbox"/> Hydraulic Project Approval |
| <input type="checkbox"/> Special or Conditional Use Permit | <input type="checkbox"/> Other | |

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Attachment to Item #11
SM-8A, Page 1

OPERATION	DNR	ACTIVE OR INACTIVE	RECLAMATION STATUS
C.T.C.	#70-012824	Permit Closed	Site Reclaimed
C.T.C. (FROST)	#70-012966	Permit Closed	Site Reclaimed
ENGLISH (ENGLISH)	#70-012557	Permit Closed	Site Reclaimed
ENGLISH (CARL)	#70-012822	Inactive	Current
ENGLISH (KIEWIT)	#70-010009	Active	Current
FISHER QUARRY (PACROCK)	#70-010379	Active	Current
FISHER EAST (WSDOT)	#70-010378	Inactive – In process of transferring permit to Land Owner	Current
LEWISVILLE PIT	#70-012044	Active	Current
ORCHARDS PIT	#70-010709	Active	Current
REEBS/PARR	#70-013027	Active	Current
SMITH PIT (TIDYMAN ROAD)	#70-011367	Permit Transferred to Hood River S&G	Current
SMITH PIT (NORTH TERRACE)	#70-011393	Permit Transferred to Hood River S&G	Current
WASHOUGAL	#70-010745	Inactive	Current