January 22, 2019

Submitted To: Skagit County Planning and Development Services

1800 Continental Place, Mount Vernon, WA 98273

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Subject: Marblemount Quarry Project Special Use Permit Additional Requirements – G4

**Operations Proposal** 

# **Executive Summary**

Kiewit Infrastructure Co. (KIC) will be the primary operator in partnership with Cunningham Trust. This memorandum is designed to outline the operational plan for the Marblemount Quarry Project ("Project" or "Proposal"). This operational plan incorporates those mitigation measures identified in the technical reports submitted with the SEPA checklist, as summarized in the Marblemount Quarry Mitigation Plan (Element Solutions, January 22, 2019). This memorandum is submitted to meet the Additional Requirement G4 of the SUP application for the Marblemount Quarry Project and to integrate recommended mitigation measures identified within the Mitigation Plan. The Marblemount Quarry Operations Plan establish frequency and methods of blasting, number of truck loads per day, proposed provisions for screening and fencing, hours of operation as well as establishing the basic site operations, including safety, stormwater management, fugitive dust management, and inadvertent discovery protocols. Operations managers will be familiar with this Operation Plan, relevant regulatory requirements, safety protocols, and will be responsible for overall management and regulatory compliance.

# **Overview of Quarry Operations**

The Marblemount Quarry will be implemented in four steps: 1) Site Preparation, 2) Quarry Development and Operation, 3) Future Phase Quarry Expansion, and 4) Quarry Site Reclamation. Site preparation will begin following issuance of Skagit County permits and a Washington Department of Natural Resources (DNR) Class IV Forest Practice Conversion permit and will include construction of the access road to the top of the site. The site preparation step is anticipated to begin in spring 2019.

A detailed Project Description is included as attachment 1 to the SEPA checklist and is incorporated by reference.

# **Specific Operations Management**

# 1. Estimated Frequency of Blasting

Blasting will occur during construction of the access road and during jetty stone mining operations. During access road construction, small blasts will occur approximately 4-6 times per day for an estimated three-month timeframe. During typical jetty stone mining operations, blasting will occur daily at the end of the shift, with an occasional second blast at or near the midday break. Blasting methods will follow the parameters specified in the vibration analysis and as below:

- A. Blast-hole diameter will not exceed 5.0 inches.
- B. Charge-weight-per-delay will not exceed 50 pounds without notification and monitoring (see 1(I) below).
- C. Minimum confining rock burden on all charges shall be at least 25 charge-diameters.
- D. All charges shall be stemmed with at least 20 charge-diameters of clean washed crushed stone.
- E. Height of blasted rock benches will not exceed 40 feet.
- F. Kiewit Infrastructure Co. (KIC) or their contractors will apply spill cleanup procedures whereby measurable explosive spills are cleaned up immediately to prevent losses of nitrates and ammonia to the ground and neighboring water resources.
- G. PPV at residential property will not exceed 0.2 in/s, and PPV on ground above buried utilities should not exceed 4.0 in/s.
- H. Air-overpressure measured at nearest offsite structures will not exceed 133 dBL.
- I. If vibrations occurring during operations are determined to be a significant concern at the nearest structures, at least two seismographs may be deployed to measure PPV and air-overpressure at nearest structures or utilities of concern and adaptive management strategies may be developed. All monitoring shall conform to International Society of Explosives Engineers (ISEE) Guidelines.
- J. Blast benches will be wetted with sprayed water to suppress dust on days when wind speed is greater than 15 mph.
- K. If KIC hires subcontractors to perform blasting work, these mitigation measures will be listed as specific contract requirements with any drilling and blasting contractors.

#### 2. Estimated Truck Loads per Day

Hauling jetty stone will occur daily at a maximum rate of 50 round trips per day. If market conditions are exceptional, undersized stone marked by Cunningham Crushing could reach a maximum of 25 round trips per day. The maximum total number of round-trip truck loads per day is 75. Truck loads will be within the regulated limits, unless an overweight permit is obtained.

# 3. Screening and Fencing

The proposed clearing limits provide a 50-foot separation between the quarry and Rockport Cascade Road. The 50-foot area is covered with extremely dense timber and forest that will block the view of the quarry from the road. Security gates will be installed on both entrances to the quarry from the Rockport Cascade Highway. 100-foot buffers will be established on the north, east, and south property lines to provide visual screening.

Noise impacts at the site (including blasting) would be largely limited to these operating hours. Equipment maintenance would occur from 6:00 AM to 12:00 AM. Normal operations require heavy equipment maintenance after work hours.

# 4. Estimated Hours of Operation

Hours of operation for the site would be 6:00 AM to 6:00 PM Monday through Saturday. Occasional operation outside of these hours (including night shifts) may occur during limited, short-duration time periods. Equipment maintenance would occur from 6:00 AM to 12:00 AM. Normal operations require heavy equipment maintenance after work hours.

# **Basic Operations**

To develop and operate this quarry KIC anticipates the basic operations listed below:

- Safety and Training
- Site Preparation
- Screening & Fencing
- Constructing Quarry Haul Road
- Jetty Stone Mining Operations
- Processing Undersized Jetty Stone
- Reclamation

- Stormwater Management, including SWPPP/TESC
- Fugitive Dust Management
- Inadvertent Discovery Protocols
- Spill Prevention, Control and Countermeasures Plan (SPCC)

#### 5. Safety and Training

KIC has a formal safety policy manual and training manual comprised of the following main components:

#### Policy:

It is the policy of Kiewit Infrastructure Co. to perform work in the safest manner possible consistent with good construction practices. To fulfill the requirements of this policy, an organized and effective safety program shall be carried out at each location where work is performed.

Responsibility for the safety program is delegated to line supervision in accordance with the chain-of-command. Safety personnel, if assigned to the project, are staff assistants to

management and in no way relieve supervisors of their responsibility and accountability for the safe completion of the work.

It is the goal of Kiewit Infrastructure Co. to strive towards the elimination of all injuries. "Kiewit Safe – Nobody Gets Hurt" shall be the philosophy of all management before it can be attainable. Employees can help us meet our expectations regarding safety when they are included in processes and planning.

# **Safety Program Objective:**

The objective of the safety program is to prevent all injuries and accidents. An accident is any unplanned or unintended event that disrupts the orderly process of performing work. An accident, by this definition, results in a loss due to project disruption and delay, and often involves additional losses due to personal injury, equipment damage, property or material damage, or a combination of these. Prevention of accidents shall be the objective of all our safety efforts rather than only those where the potential for serious loss is most apparent.

# **KIC Safety and Training Policy Manual:**

District Safety Programs – 14 ea.

Occupational Health Programs – 9 ea.

Construction Safety Programs – 11 ea.

Equipment Safety – 9 ea.

Safety Notices – 13 ea.

If more information is desired, we can supply our Safety Policy Manual for review.

This project is under the jurisdiction of MSHA which requires all employees within the quarry attend 24-hour mining training. This training emphasizes quarry hazards and first aid.

## 6. Site Preparation

Site preparation will consist of clearing, installing storm water pollution prevention requirements, topsoil removal and stockpiling on site, site grading, and constructing buildings and operations facilities. Clearing limits and appropriate staking/flagging will be conducted prior to clearing activities. Marketable logs will be removed from the site. Brush and other organic materials generated in the site preparation will be chipped and stored within the topsoil storage area on site for future reclamation purposes. These operations are limited to the areas identified in the Site Plan. It is anticipated that this work will take approximately two months. Work will be completed in 12 hour shifts between 6:00 AM and 6:00 PM. The crew size for this operation includes 3 supervisors and 5-7 craft employees. No blasting is anticipated for this operation. See Engineering Site Plans (Exhibit A of SEPA Checklist) for additional details. Site preparation integrates the mitigation measures identified in the Marblemount Quarry Mitigation Plan (Appendix K) and further described in detail within the Engineering Analysis and Drainage Plan and Stormwater Pollution Prevention Plan (SWPPP) (Appendix J of SEPA Checklist), and Fugitive Dust Plan (Appendix B of SEPA Checklist).

## 7. Screening & Fencing

Screening will be accomplished by leaving a 50-foot area of extremely dense timberland between Rockport Cascade Highway and the proposed quarry. At the two entry points that extend through the dense timberland, security gates will be installed to manage vehicle access. 100-foot buffers would be maintained on north, east, and south property lines. Areas where vegetation is to be retained for buffers will be flagged and clearing limits established.

## 8. Constructing Access Road

The purpose of the access road construction is to provide access from the jetty stone loadout area adjacent to Rockport Cascade Road to the top of the rock face for timber clearing. This road will be approximately 6,700 feet in length and has an estimated volume of 235,000 CY of cut and 550,000 CY of fill. The cut will be used to build portions of the required fill. The balance of the fill will come from undersized stone generated during the jetty stone mining process. Imported fill from legally established and permitted surface mines will be used to make up for any fill deficit. The road will be constructed to the standards required by Skagit County, WA DNR, and Mine Safety and Health Administration (MSHA) regulations.

The road will be constructed from the top down using heavy equipment. Blasting will be utilized where necessary and appropriate to cut benches in bedrock areas. Safety BMPs adopted by Kiewit will be followed for road construction and blasting. Dust management, stormwater/erosion control, inadvertent discovery protocols will be followed by on-site crews familiar with and appropriately trained with these protocols.

The anticipated duration of this road construction operation is approximately three months. Work will be completed between 6:00 AM and 6:00 PM. The crew size for this operation includes 3 supervisors and 6-12 craft employees. There will be blasting required to construct the access road. The blasts are small in nature but will occur approximately 4-6 times per shift during the planned work hours when areas of bedrock are encountered and benches are constructed. See **Sheet 3 of 24, Overall Site Plan** in **Exhibit A** of the **SEPA Checklist** for additional details. Access road construction methods integrates the mitigation measures identified in the **Marblemount Quarry Mitigation Plan** (Appendix K) and as further described in detail within the **Engineering Analysis and Drainage Plan and Stormwater Pollution Prevention Plan (SWPPP) (Appendix J of SEPA Checklist), <b>Fugitive Dust Plan** (Appendix B of SEPA Checklist), and **Cultural Resources Assessment** (Appendix H).

#### 9. Jetty Stone Mining Operations

Jetty stone mining operations contain the following basic operations:

- A. Blast Hole Drilling
- B. Blasting
- C. Excavating & Sorting Jetty Stone

- D. Splitting Oversized into Jetty Stone
- E. Loadout Jetty Stone
- F. Hauling Jetty Stone

## A. Blast Hole Drilling

Blast hole drilling will utilize track mounted drills with enclosed cabs. These drills will be sized to drill 40 ft. deep holes at a diameter of 5 inches. It is anticipated that 2 drills and a crew of 3 will meet the required productions for jetty stone quarrying. Work will be completed in 12 hour shifts between 6:00 AM and 6:00 PM. Drill waste will be managed by capping to avoid and minimize potential dust releases.

## B. Blasting

Blasting typically occurs daily at the end of the shift. To maintain overall jetty stone mining productions, occasionally there will be 2 blasts in one shift with the blast occurring at or near the lunch hour. The typical blasting crew size is 2, consisting of the licensed blaster and one helper. Additional details pertaining to blasting can be found in the report "Assessment of Rock Blasting Impacts and Recommended Practices" in Appendix F of the SEPA Checklist.

# C. Excavating & Sorting Jetty Stone

Excavating & Sorting operations are accomplished utilizing large excavators, dozers and hauling equipment. Their task is to sort 4 to 28-ton jetty stone out of the blast and haul directly to the jetty stone stockpile area near the loadout area. The oversized stone is moved within the quarry limits and split into jetty stone, as described in Section D below. The undersized jetty stone is also loaded and hauled to a stockpile within the MRO limits.

The typical excavating & sorting spread consists of the following:

- Komatsu 2000 Front Shovel
- Caterpillar D10 Dozer/Ripper
- Caterpillar 773 60 Ton Haul Trucks
- Caterpillar 14 Motor Grader
- Kenworth W900 Water Truck (4,000 gallon)

A more comprehensive list of equipment potentially working on this site is provided at the end of this Operation Plan (page 12). Work will be completed in 12 hour shifts between 6:00 AM and 6:00 PM. The typical excavating and sorting crew size is 6-7.

# D. Splitting Oversized into Jetty Stone

Splitting oversized stones produced during blasting is accomplished using a track mounted splitter drill, manlift and hydraulically powered feather wedges. The typical splitting crew size is 2. Work will be completed in 12 hour shifts between 6:00 AM and 6:00 PM.

### E. Loadout Jetty Stone

Loading jetty stone is done using a 988 or 990-front end loader. The loading operation is done on 70-ton truck scales for the purpose of maximizing load size. The typical loadout crew size is 4. Loadout will be completed during 12 hour shifts between 6:00 AM and 6:00 PM.

#### F. Hauling Jetty Stone

The hauling of jetty stone is typically done on highway truck and trailer combinations of 7 and 8 axles. A typical load could contain 1-5 stones that will not exceed the licensed load limit of 105,000 lbs. per truck load. Stones that exceed approximately 28 ton each will require special hauling equipment and Oversized/Overweight Permits. Hauling jetty stone will occur daily from daylight to dusk. The maximum amount of truck loads planned per day for jetty stone is 50, for a maximum of 75 loads per day.

Jetty stone mining operations would follow the Engineering Analysis and Drainage Plan, SWPPP, and Fugitive Dust Plan.

### G. Processing Undersized Jetty Stone

The Cunningham Trust/Cunningham Crushing retains the right to process and market all undersized stone stockpiled on site. This operation will be completely dependent upon local market conditions. The maximum amount of truck loads per day is 25.

#### 10. Reclamation

Reclamation will be in accordance with the Department of Natural Resources (DNR) requirements. Reclamation will begin during mining. As the 20 ft. proposed benches are exposed by mining operations, they will be graded for topsoil placement and planted with native species as approved by the DNR. The planting will be done by licensed firms in the landscaping industry. Final reclamation will occur on the remaining site area upon depletion of the quarry. This will also include re-distribution of topsoil and planting of native species.

# 11. Stormwater and Erosion Control Management

The project will be constructed to follow the stormwater site plan project design and the Stormwater Pollution Prevention Plan (SWPPP) prepared for this project (see **Engineering Analysis and Stormwater Plan** – Appendix J which is included as part of this Operation Plan). At a minimum, the following BMPs will be followed.

#### **ELEMENT #1** ~ Mark clearing limits

Prior to the commencement of construction activities, the limits of the clearing area will be marked in the field. The minimum required soil stabilizing BMP's are:

□ C101: Preserve Natural Vegetation

#### **ELEMENT #2** ~ Establish construction access

Access points shall be stabilized with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking of sediment onto public roads. If sediment is tracked off site, the affected roadway will be cleaned thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Sediment shall be removed from roads by shoveling, sweeping, or pick up and transport the sediment to a controlled sediment disposal area. The minimum required soil stabilizing BMP's are:

C105: Stabilized Construction Entrance

#### **ELEMENT #3** ~ Control flow rates

Properties and waterways downstream of development sites shall be protected from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site. All stormwater runoff will be 100% infiltrated into the existing site.

#### **ELEMENT #4 ~ Install Sediment Controls**

Sediment ponds will be installed as one of the first steps in grading. Stormwater runoff from the disturbed portions of the site shall be routed through stabilized channels, including check dams. The minimum required BMP are:

□ C207 or C208: Triangular Silt Dike or Gravel Check Dam

#### **ELEMENT #5 ~ Stabilize Soils**

All exposed and unworked soils shall be stabilized by applications of effective BMP's that protect the soil from the erosive forces of raindrop impact and flowing water, and wind erosion. From October 1 through April 30, no soil shall remain exposed and unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed and unworked for more than 7 days. This condition applies to all soils on site, whether at final grade or not. Soils shall be stabilized at the end of a shift before a holiday or weekend if needed based on the weather forecast.

Soil stockpiles must be stabilized from erosion, protected with sediment trapping measures, and when possible, be located away from storm drain inlets, waterways, and drainage channels. The minimum required soil stabilizing BMP's are:

□ C101: Preserve Natural Vegetation

C140: Dust Control

□ C130: Surface Roughening

#### **ELEMENT #6** ~ Protect slopes

Cut and fill slopes shall be constructed in a manner that will minimize erosion. Excavated material shall be placed on the uphill side of trenches, consistent with safety and space considerations. Check dams shall be placed at regular intervals within channels that are cut down a slope. Soils on slopes shall be stabilized according to Element #5 above. In addition to BMPs listed in Element #5 above, the minimum required slope protection BMP's are:

□ C130: Surface Roughening

#### **ELEMENT #7 ~ Protect Drain Inlets**

Storm drain inlets will be made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage. Due to the size of the inlet structures, sand bag barriers or the block

and gravel filter shall be used instead of catch basin inserts. The minimum required slope protection BMP's are:

□ C220: Storm Drain Inlet Protection

#### **ELEMENT #8** ~ Stabilize channels and outlets

Open channels shall be stabilized using armoring material, adequate to prevent erosion of outlets, adjacent streambanks, slopes, and downstream reaches. Check dams shall be installed fifty feet on center in all open ditches. The minimum required slope protection BMP's are:

□ C207: Check Dams

# **ELEMENT #9 ~ Control pollutants**

All pollutants, including waste materials and demolition debris, that occur on-site during construction shall be handled and disposed of in a manner that does not cause contamination of stormwater. The minimum required BMP's are:

□ C152: Sawcutting and Surface Pollution Prevention

### **ELEMENT #10 ~ Control de-watering**

Dewatering is not anticipated on this project.

### **ELEMENT #11 ~ Maintain bmps**

All temporary and permanent erosion and sediment control BMPs shall be inspected weekly, maintained and repaired as required to assure continued performance. Temporary erosion and sediment BMP's shall be removed within 30 days of final site stabilization.

### **ELEMENT #12 ~ Manage the Project**

BMPs shall be inspected, maintained and repaired to assure continued performance of their intended function. The SWPPP shall be maintained and implemented as needed.

#### **ELEMENT #13 ~ Protect Low Impact Development BMPs**

Protect all Bioretention and Rain Garden BMPs from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the Bioretention and/or Rain Garden BMPs. Restore the BMPs to their fully functioning condition if they accumulate sediment during construction. Restoring the BMP must include removal of sediment and any sediment-laden Bioretention/rain garden soils, and replacing the removed soils with soils meeting the design specification.

Prevent compacting Bioretention and rain garden BMPs by excluding construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.

Control erosion and avoid introducing sediment from surrounding land uses onto permeable pavements. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment- laden runoff onto permeable pavements.

Pavements fouled with sediments or no longer passing an initial infiltration test must be cleaned using procedures from the local stormwater manual or the manufacturer's procedures.

Keep all heavy equipment off existing soils under LID facilities that have been excavated to final grade to retain the infiltration rate of the soils.

# 12. Fugitive Dust Management

The following mitigation measures reduce the risk associated with fugitive dust and air quality impacts potentially resulting from the Proposed Project and comply with applicable regulations and standards:

- A. Mulch or vegetation will be used to cover disturbed soils following clearing to stabilize potential sources of windblown dust.
- B. Vegetation buffers along the project perimeter will be maintained to reduce the likelihood of windblown dust leaving the site.
- C. Fine grained rock drill spoils from work areas will be covered to avoid wind disturbance.
- D. Speed limits of 10-15 mph will be maintained for all gravel surface haul roads in the project area during dry conditions.
- E. Water trucks will spray the ground surface of gravel surface roads in the project area during dry conditions to prevent dust from becoming airborne. The surface will be wetted until moist, while controlling excessive water application to avoid concentrated discharge.
- F. During dry conditions, operators will pre-wet fill and spoil materials during placement to avoid wind induced drift.
- G. Operations managers will observe conditions during periods of high wind and stop dust-generating activities as needed or apply wetting techniques as necessary to mitigate dust.
- H. Water for dust management will be obtained from off-site sources. Currently Skagit County PUD and the City of Darrington have been contacted and have confirmed availability.

## 13. Inadvertent Discovery Protocol

The following mitigation measures reduce risk of potential cultural resources impacts resulting from the Proposed Project and comply with applicable regulations and standards:

- A. The Proposed Project will have an Inadvertent Discovery Plan. The Inadvertent Discovery Plan will include the following elements:
  - a. In the event that archaeological materials (e.g. shell midden, faunal remains [bones], stone tools, historic glass, metal, or other concentrations) are encountered during the development of the property,
  - b. An archaeologist will be notified immediately and work will be halted in the vicinity of the find until the materials can be inspected and assessed.
  - c. The project archaeologist will review the find and contact the relevant parties. An assessment of the discovery and consultation with government and tribal cultural resources staff is a requirement of law. Once the situation has been assessed, steps to proceed can be determined.

# 14. Spill Prevention, Control and Countermeasures (SPCC) Plan

The methods and actions in KIC's SPCC are compliant with the U.S. Environmental Protection Agency (EPA) guidance for the use and storage of oil product and follows the applicable regulatory requirements provided in the Federal Oil Pollution Prevention regulation (40 CFR part 112). Below is a summary of routine operations.

#### **Routine Site Operations and BMPs for Spill Prevention and Control**

- A. Keep work areas clean and well organized to help prevent accidents.
- B. Use drip pans and splash guards where spills frequently occur.
- C. Fix leaks immediately.
- D. Purchase the largest practical container (containers usually end up as waste), but do not purchase more than is needed.
- E. Purchase the least toxic or hazardous product available. Check the material safety data sheets for products you purchase. If the product is toxic or hazardous, ask your supplier for alternatives.
- F. Use the oldest items first (first-in, first-out).
- G. Store materials in a way that keeps them from being damaged.
- H. Inspect storage areas regularly for leaks.
- I. Make sure all items are clearly labeled. Store products in original containers.
- J. Store wastes separately and be sure they are properly labeled to make it easier to reuse or recycle them.
- K. Store items that could leak in a place where leaks will be contained and easily spotted.
- L. Prevent overfilling and spilling when filling or transferring hazardous materials.
- M. Properly maintain tanks to prevent corrosion.
- N. Place aboveground tanks where leaks can be easily contained without entering the environment.
- O. Inspect tanks daily for leaks and spills.
- P. Maintain appropriate spill containment equipment.
- Q. Maintain employee training for proper use.
- R. Clean up spills as soon as possible.
- S. KIC contracts with Emerald, a full-service environmental partner for automotive, commercial and industrial services. They will recycle and/or dispose of used oil and industrial materials generated by the quarry and manage them as per applicable regulatory standards.

#### 15. Miscellaneous Operations Management

- A. Portable toilets will be provided and maintained regulatory to provide sanitary services for on-site employees.
- B. Water storage for fire suppression will be maintained and inspected regularly.
- C. Potable water will be provided by a third-party vendor to provide drinking water for employees.
- D. Garbage and solid waste generated will be collected in bins and disposed of at a legal waste disposal facility.

# Heavy equipment or machinery anticipated for operation:

- SWPPP instillation:
  - o 1/2 Ton Pickup
  - o CAT D5 Dozer
  - CAT 303 Excavator
- Site clearing:
  - ½ Ton Pickup
  - CAT D5 Dozer
  - o CAT D9 Dozer
  - CAT 325 Excavator
  - CAT 336 Excavator
  - Peterson Horizontal Grinder
- Site preparation:
  - o 1/2 Ton Pickup
  - o CAT D5 Dozer
  - CAT D9 Dozer
  - o CAT 325 Excavator
  - CAT 336 Excavator
  - o CAT 770 Haul Truck 2 ea.
- Haul road construction:
  - o ½ Ton Pickup
  - o CAT D9 Dozer
  - o CAT D10 Dozer
  - CAT 336 Excavator
  - CAT 374 Excavator 2 ea.
  - CAT 336 Excavator with Hydraulic Drill 2 ea.
  - CAT 770 Haul Truck 4 ea.
  - o CAT 14G Motor Grader
- Quarry drilling:
  - o ½ Ton Pickup
  - Tamrock or Sandvik 5" Diameter Blast Hole Drill 2 ea.
- Quarry blasting:
  - 1. 1 Ton Powder Truck
- Quarry mining:
  - o 1/2 Ton Pickup

- o Komatsu PC2000 Front Shovel
- o CAT 374 Backhoe
- o CAT 988/990 Front End Loader
- o CAT D10 Dozer
- o CAT 773 Haul Truck 3 ea.
- o CAT 14G Motor Grader
- Jetty stone sizing:
  - o 1/2 Ton Pickup
  - o Tamrock Splitting Drill
  - o JLG Man Lift
  - o Xtreme Forklift
- Jetty stone stockpiling:
  - o CAT 988/990 Front End Loader
- Jetty stone highway truck loading:
  - o CAT 988/990 Front End Loader
  - o Toledo 70 TN Scales