

## ***Division 3      Aggregate Production and Acceptance***

---

### **3-01      Production From Quarry and Pit Sites**

#### **3-01.1      Description**

This Work shall consist of manufacturing and producing crushed and screened aggregates including pit run aggregates of the kind, quality, and grading specified for use in the construction of concrete, hot mix asphalt, crushed surfacing, maintenance rock, ballast, gravel base, gravel backfill, gravel borrow, riprap, and bituminous surface treatments of all descriptions.

The requirements specified shall apply whether the source is ledge rock, talus, gravel, sand, or any combination thereof.

#### **3-01.2      Material Sources, General Requirements**

##### **3-01.2(1)      Approval of Source**

Material sources must be approved in advance of use in the Work in accordance with the requirements of [Section 1-06](#). This approval of source may require sampling and testing. If sampling is required, the samples must be taken at locations designated and witnessed by the Engineer or a designated representative. The Contractor is responsible for providing representative preliminary samples of aggregate sources to the Engineer.

##### **3-01.2(2)      Preparation of Site**

The portion of the quarry or pit site to be used shall be cleared and grubbed, and the area from which materials are to be taken shall be stripped of overburden as provided in [Section 3-01.2\(3\)](#). All combustible debris resulting from these operations shall be disposed of by the Contractor in a manner satisfactory to the Engineer.

The Contractor shall provide sufficient space as required for the setup and operation of the Contracting Agency's field testing facilities at the site of crushing or hot mix asphalt production.

As directed by the Engineer, the Contractor shall provide one of the following to ensure 24-hour per day operation of the Contracting Agency's laboratory trailer(s) that may be set up at the site during production:

1. A power source and a power cord of sufficient length to reach the Contracting Agency's laboratory trailer(s) which may be set up at the site. The cord shall be capable of carrying at least 120/240 volts, 60 cycles at a sustained load of up to 200 amps. The cord and trailer(s) electrical hookup shall meet the NEC code. Power shall be provided and connected when requested by the Engineer. The laboratory trailer(s) hookup shall be protected by a 2 pole 50 amp 240 VAC circuit breaker.
2. A daily supply of fuel adequate for operation of the Contracting Agency's generator(s).

Potable water shall be provided to the Contracting Agency's laboratory trailer(s) for use during plant operations when requested by the Engineer.

### **3-01.2(3) Stripping Quarries and Pits**

Stripping of quarries and pits shall consist of the removal, after clearing and grubbing, of the surface material and overburden which is unsuitable for the kind of material to be borrowed or produced for use. Materials from stripping, to be used later as provided on the site reclamation plan specified in [Section 3-03](#), shall be deposited within the quarry or pit site at such a location as not to interfere with future development within the site.

### **3-01.2(4) Production Requirements**

All oversize stones, rock fragments, or boulders occurring in the source, up to and including those measuring 18 inches in the greatest dimension, shall be utilized in the manufacture of crushed material.

If the grading or quality of raw material in sources used for the manufacture of products covered by this section is such that the fracture, grading, or quality of the product specified cannot be obtained by utilizing the natural material, fine portions of the raw material shall be rejected to the extent necessary to produce products meeting all requirements of these Specifications. Failure of the Contracting Agency to include a scalping requirement in the Special Provisions shall not relieve the Contractor of the responsibility for rejecting fine portions of the material if such becomes necessary to produce products meeting all requirements of these Specifications. Scalping shall be performed after the pit-run or quarry-run material has passed through the primary crusher.

When scalping over a screen of a specified size is required in the Special Provisions, the scalping screen shall be of such size and capacity that enough of the fine material will be removed to produce Work that conforms to the Specifications.

Washing and reclaiming of the reject material and subsequent addition of this material to any finished products will not be allowed unless specifically authorized in writing by the Engineer.

Surplus screenings accumulated during the crushing and screening of specified Roadway materials will be considered separate and distinct from reject material resulting from scalping operations.

Both fine and coarse concrete aggregates shall be thoroughly washed in order to remove clay, loam, alkali, bark, sticks, organic castings, or other deleterious matter. Washing will be required in the production of other materials if necessary to produce products meeting all the quality requirements of these Specifications.

When producing screened gravel or sand materials, the Contractor shall remove all oversize material by screening at the pit site. The Contractor's operations in the pit shall be conducted so that the grading of individual loads will be reasonably uniform. In

general, the Contractor shall utilize the most suitable materials available and shall make as many moves of the loading equipment as may be necessary to fulfill these requirements.

Where pit-run materials meet Specifications, screening or processing will not be required.

### **3-01.2(5) Final Cleanup**

Upon completion of the Contractor's operation, the quarry or pit shall be cleared of all rubbish, temporary Structures, and equipment, and shall be left in a neat and presentable condition. The pit or quarry shall be reclaimed in accordance with the approved site reclamation plan specified in [Section 3-03](#).

## **3-01.3 State Furnished Material Sources**

Unless specified in the Special Provisions, no Contracting Agency material sources are provided and the Contractor shall bear full responsibility for furnishing all materials.

### **3-01.3(1) Quality and Extent of Material**

Contracting Agency furnished material sources will be shown in the Plans and described in the Special Provisions. The quality of material in such sources will be acceptable in general, but the Contractor shall determine the amount of Work required to produce the material meeting these Specifications. It shall be understood that it is not feasible to ascertain from samples, the limits for an entire source, and that variations shall be considered as usual and are to be expected. The Engineer may order procurement of material from any portion of a source and may reject portions of the source as unacceptable.

Since many material sources are acquired in fee by the Contracting Agency for use on future projects as well as for this Contract, it is in the public interest to preserve the future usefulness and adequacy of a source insofar as may be practical. To achieve this end, the Contractor shall not perform any Work within the source until receiving the Engineer's approval of the Contractor's work plan within the limits of the source.

### **3-01.3(2) When More Than One Site is Provided**

When more than one quarry or pit site is provided in the Special Provisions, the Contractor may obtain material from any of the sources. The Contracting Agency will specify the quantity of raw material available, as determined by tests, in each quarry or pit site. If the Contractor sets up in a site, and it is found that the quantity of raw material from that site, when the site is exhausted, is less than that specified by the Contracting Agency, then the provisions of [Section 3-01.3\(5\)](#) will apply.

### **3-01.3(3) Reject Materials**

All scalpings that are unsatisfactory for use under these Specifications or Special Provisions shall be considered as reject material, subject to disposal as approved by the Engineer. Reject material shall be placed at such a location as not to interfere with future development within the site.

### 3-01.3(4) Surplus Screenings

The surplus screenings accumulated during the production of the specified materials shall be stockpiled at a location within the site provided and become the property of the Contracting Agency. The stockpile site shall be prepared and constructed by the Contractor in accordance with the provisions of [Section 3-02](#). All costs incurred in producing, hauling, and stockpiling the surplus screenings shall be incidental to the production of the specified materials and shall be included by the Contractor in the unit Bid prices in the Contract.

### 3-01.3(5) Moving Plant

If, in the opinion of the Engineer, there should be insufficient suitable material in any quarry or pit site made available by the Contracting Agency, the Contracting Agency will acquire at its expense an additional source, in which event the Contractor will be required to move the crushing plant to the new quarry or site. Under such conditions, payment for the Contractor's costs for the move will be made on a force account basis. Payment will be limited to the labor, equipment, and materials required for the move, and no allowance will be made for payment of standby costs for the crushing plant nor other equipment which may be temporarily idle as a result of the move.

The clearing, grubbing, and preparing of the new quarries or pit sites as specified in [Section 3-01.2\(2\)](#) will be paid for in the manner provided in these Specifications for "Clearing", "Grubbing", and "Stripping Including Haul". If there is no Bid item applicable, the payment for the preparation of the new site will be as provided in [Section 1-04.4](#).

If the moving of the plant due to shortage of the supply of material necessitates a longer haul on materials than required from the original source, the Contracting Agency will reimburse the Contractor for the additional haul at the rate of \$0.25 per ton-mile haul. The unit ton-mile shall be the equivalent of 1 ton of material hauled a distance of 1 mile. The haul distance will be measured in ½-mile units, fractional half-miles being allowed as full half-miles. If the requirement for moving of the crushing plant results in a delay of performance of Work which is critical to completion of the project, as shown by the Contractor's approved progress schedule, the Engineer will authorize a suspension of Work for the time required for the move.

The above allowances, insofar as they may be applicable, shall be full pay for all claims of any kind or description by reason of the necessity of changing from one site to another due to shortage of the supply from sources made available by the Contracting Agency. Before moving a crushing plant as outlined above, the Contractor shall secure from the Engineer an order in writing to do so. Should the Contractor fail to secure such order, it shall be considered sufficient proof that the move was immaterial insofar as to cost, and no allowance or pay will be made by reason of such move.

## 3-01.4 Contractor Furnished Material Sources

### 3-01.4(1) Acquisition and Development

If, under the terms of the Contract, the Contractor is required to provide a source of materials, or if the Contractor elects to use materials from sources other than those provided by the Contracting Agency, the Contractor shall, at no expense to the Contracting Agency, make all necessary arrangements for obtaining the material and shall ensure the quantity of suitable material is available. Preliminary samples shall be taken by or in the presence of the Engineer or a designated representative unless the Engineer permits otherwise. Approval of the source does not relieve the Contractor from meeting these Specification requirements, nor does it guarantee that the material will meet these requirements without additional or proper processing. The Engineer may require additional preliminary samples at any time.

Approval of a Contractor's source offered in lieu of a Contracting Agency-provided source will be contingent upon the material therein being of equal quality, and no additional costs will accrue to the Contracting Agency as a result of such approval. Equivalency of quality will be based on those test values listed in the Special Provisions as being representative of material in the Contracting Agency-provided source. If no such values are listed, the minimum Specification requirements will apply. When measurement by weight is specified and when the specific gravity of material produced from the Contractor's source is greater than that from the Contracting Agency-furnished source, any additional material required to construct the minimum specified surfacing depth shall be furnished by the Contractor at no expense to the Contracting Agency.

The Contractor shall notify the State Departments of Ecology, Fish and Wildlife, and Natural Resources, in writing, of the intent to furnish the source, and shall, at no expense to the Contracting Agency, make all necessary arrangements with these agencies for the determinations of regulations which might be imposed upon the Contractor during removal of materials from the source.

The source shall be selected so that, after the materials have been removed, the pit will drain to a natural drainage course and no ponding will result. Should the source selected by the Contractor be one which would not drain as outlined herein, permission shall be obtained by the Contractor from the governing body of the city or county for the removal of materials from the pit or quarry.

The Contractor will not be permitted to operate a pit or a quarry site visible from a State Highway unless it can be demonstrated to the complete satisfaction of the Engineer that no unsightly condition will result from or remain as a result of the Contractor's operations. If, in the opinion of the Engineer, unsightly conditions exist after removal of materials from the site, the Contractor shall correct such unsightly conditions as hereinafter provided.

Following removal of materials from the pit, the entire site shall be cleared of all rubbish, temporary Structures, and equipment which have resulted from the Contractor's occupancy and operations. The Contractor shall obliterate or screen to the satisfaction of the Engineer any unsightly conditions that remain. The Contractor shall secure a written release from the permitter upon fulfillment of these requirements. All costs for cleaning up the pit site and for the installation or erection of screening or for other work required to correct unsightly conditions shall be at the Contractor's expense. The requirements of this paragraph shall not apply to pits being operated commercially.

All costs in connection with acquiring the rights to take materials from the source, for exploring and developing the site, for complying with the regulations of the aforesaid State agencies, for preparing the site as provided in Sections [3-01.2\(2\)](#) and [3-03](#), for cleaning up the site, and for correcting unsightly conditions, shall be included in the unit Contract prices for the various pay items of Work involved.

#### **3-01.4(2) Surplus Screenings**

Surplus screenings accumulated during the manufacture of specified material shall remain the property of the Contractor.

#### **3-01.4(3) Substitution of Gravel Deposit in Lieu of Ledge Rock or Talus Source Provided by the Contracting Agency**

If the Contractor elects to substitute a gravel deposit of an approved source for the manufacture of ballast, crushed surfacing, or mineral aggregate in lieu of a ledge rock or talus source provided by the Contracting Agency in the Contract, all pit run materials passing a ½-inch-square sieve, or larger if ordered by the Engineer, shall be removed prior to crushing.

#### **3-01.4(4) Gravel Base**

If the Contract requires the Contractor to provide the source of Gravel Base, or if the Contractor elects to furnish said material from sources other than those provided by the Contracting Agency, the material shall be produced from approved sources in accordance with the requirements of [Section 3-01](#). The grading and quality shall be as specified in [Section 9-03.10](#).

Measurement and payment will be in accordance with [Section 4-02](#).

### 3-01.5 Measurement

For payment purposes, all crushed, screened, or naturally occurring materials that are to be paid for by the ton, dependent upon their grading, will be limited to the following water contents naturally occurring in the material source:

Percent By Weight Passing No. 4	Maximum Water Content Percent By Weight
Less than 20	4
20 or more	8

Water in excess of the maximum permissible amounts naturally occurring in the material source, as determined by the Engineer, will be deducted from the tonnage of material to be paid for on a daily basis.

If the Contractor uses the Central Plant Mix Method of mixing water and surfacing materials in accordance with [Section 4-04](#), the added water will be measured in accordance with [Section 4-04.4](#). All other water added to the materials by the Contractor will be deducted from the weight of the aggregates including the added water, on a daily basis.

Clearing and grubbing of quarries and pit sites will be measured in accordance with [Section 2-01](#) when the Proposal includes such Bid items and such Work is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).

Stripping of quarries and pit sites will be measured in cubic yards in its original position by cross-sectioning when the Proposal includes such Bid item and such stripping is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).

Measurement of the particular materials or aggregates to be produced will be as specified in the appropriate section of these Specifications.

### 3-01.6 Payment

All costs, except as specified, in connection with the production of materials meeting all quality requirements of these Specifications shall be included in the unit Contract prices of the various Bid items involved.

Clearing and grubbing of quarries and pit sites will be paid in accordance with [Section 2-01](#) when the Proposal includes such Bid items and such Work is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).

“Stripping Incl. Haul”, shall be paid for at the unit Contract price per cubic yard when the Proposal includes such Bid item and such stripping is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).

## 3-02 Stockpiling Aggregates

### 3-02.1 Description

This Work shall consist of preparing the stockpile sites and placing the specified aggregates in the stockpiles at the sites and in the amounts as shown in the Plans or as approved by the Engineer.

This section also includes the requirements pertaining to the removal of aggregates from stockpiles and the requirements for dressing up the stockpiles and stockpile site at the completion of the Work.

### 3-02.2 General Requirements

#### 3-02.2(1) Stockpile Sites Provided by the Contracting Agency

The Contracting Agency may acquire and make available to the Contractor suitable areas as shown in the Plans for the construction of stockpiles. The stockpiled aggregates may be for use in the immediate Work or may be for future use as more fully described below. In either event, if the aggregates are required by these Specifications to be stockpiled, all costs in connection with the preparation of the stockpile sites as required in [Section 3-02.2\(5\)](#) shall be included in the various Bid items involved in the Contract; except that clearing and grubbing of the site will be measured and paid for in accordance with [Section 2-01](#) only when such Bid items are included in the Proposal. In the event there is no Bid item included in the Proposal for construction and maintenance of haul roads to the stockpile site, the Contractor shall construct and maintain the haul roads as necessary and the cost thereof shall be included in the various Bid items in the Contract.

#### 3-02.2(2) Stockpile Site Provided by the Contractor

If the Plans do not provide a stockpile site for the use of the Contractor in stockpiling certain types and sizes of aggregates which are required by these Specifications to be stockpiled prior to use in the immediate Work, all costs in connection with the acquisition of a site, the preparation of the site, construction of the stockpiles, and the removal of the aggregates from the stockpiles shall be included in the Contract prices of the various Bid items of Work involved.

#### 3-02.2(3) Stockpiling Aggregates for Future Use

The Contracting Agency may require the production and stockpiling of aggregates on sites provided by the Contracting Agency for use on future construction or maintenance projects to be performed under a subsequent contract or by Contracting Agency forces.

When the Contract includes the Bid item or items for specific aggregates in stockpile and these aggregates are not to be used in Work required under the Contract, the Contractor shall produce or furnish these aggregates complying with the quality and grading requirements of these Specifications and shall prepare the site and place the aggregates in stockpile in accordance with the requirements of this section or as ordered by the Engineer in accordance with [Section 1-04.4](#).

### 3-02.2(4) Stockpiling Aggregates for Immediate Use

If the Contractor elects to stockpile aggregates from a source owned or controlled by the Contracting Agency prior to use in the immediate Work, the stockpiling shall be done within the area of the site provided by the Contracting Agency and in accordance with the requirements of these Specifications. If the Contractor elects to lease land to stockpile the aggregates, the stockpiling shall be done in accordance with these Specifications and upon proof that the lease will extend for a period of not less than one year beyond the completion date of the Contract. All excess aggregates remaining in stockpiles after satisfying the needs of the Contract—whether upon the site provided by the Contracting Agency or upon land leased by the Contractor—shall be disposed of in accordance with [Section 1-09.10](#). All costs resulting from the production of the excess aggregates shall be included in the cost of production of the aggregates actually incorporated in the Work.

If the Contractor elects to stockpile aggregates from a source not provided by the Contracting Agency prior to use in the immediate Work, it will be subject to the approval of the Engineer and provided that the aggregates comply with the quality and grading requirements of these Specifications. All costs in connection with the acquisition of the stockpile site, the preparation of the site, construction of the stockpiles, and the removal of the aggregates from the stockpiles shall be included in the Contract prices of the various Bid items of Work involved.

### 3-02.2(5) Preparation of Site

Before placing aggregates upon the stockpile site, the site shall be cleared of vegetation, trees, stumps, brush, rocks, or other debris and the ground leveled to a smooth, firm, uniform surface. The debris resulting from clearing and preparing the site shall be disposed of in a manner satisfactory to the Engineer.

### 3-02.2(6) Construction of Stockpiles

Stockpiles shall be constructed upon the prepared sites in accordance with stakes set by the Engineer. The piles when completed shall be neat and regular in shape. The stockpile height shall be limited to a maximum of 24 feet.

Stockpiles in excess of 200 cubic yards shall be built up in layers not more than 4 feet in depth. Stockpile layers shall be constructed by trucks, clamshells, or other methods approved by the Engineer. Pushing aggregates into piles with a bulldozer will not be permitted. Each layer shall be completed over the entire area of the pile before depositing aggregates in the succeeding layer. The aggregate shall not be dumped so that any part of it runs down and over the lower layers in the stockpile. The method of dropping from a bucket or spout in one location to form a cone shaped pile will not be permitted. Any method of placing aggregates in stockpiles, which in the opinion of the Engineer, breaks, degrades, or otherwise damages the aggregate, will not be permitted. Plank runways will be required, when deemed necessary by the Engineer, for operating trucks on stockpiles to avoid tracking dirt or other foreign matter onto the stockpiled materials. Stockpiles of less than 200 cubic yards shall be piled in a manner to prevent segregation of the various sizes of material.

No equipment other than pneumatic tired equipment shall be used in constructing the stockpiles of processed or manufactured aggregates.

Stockpiles of different types or sizes of aggregate shall be spaced far enough apart, or separated by suitable walls or partitions, to prevent the mixing of the aggregates. Aggregate shall not be deposited where traffic, vehicles, or Contractor's equipment will either run over or through the piles, or in any way cause foreign matter to become mixed with the aggregates.

### **3-02.2(7) Removing Aggregates From Stockpiles**

Aggregates shall be removed from stockpile in a manner to avoid separation of sizes or admixture of dirt or foreign material. The method and equipment used for loading will be approved by the Engineer.

No equipment other than pneumatic tired equipment shall be used on stockpiles of processed or manufactured aggregates in removing the materials from the stockpiles. When removing materials from the face of the stockpile, the equipment shall be operated in a manner to face-load from the floor to the top of the stockpile to obtain maximum uniformity of material.

The Contractor shall remove only the amount of materials from the stockpile required to satisfy the needs of the Contract. If a surplus remains in the stockpile, the Contractor shall leave the surplus material in neat, compact piles, free of foreign matter. The entire stockpile site shall be left in a neat and presentable condition.

## **3-02.3 Additional Requirements for Specific Aggregates**

### **3-02.3(1) Washed Aggregates**

Drainpipes under the stockpile shall be provided at the Contractor's expense when, in the opinion of the Engineer, such drains are necessary to properly drain the aggregates.

The roads and ground adjacent to the stockpile shall be kept free of dust. Washed aggregate that has become coated with foreign material prior to use shall be washed until free of all foreign material or it may be rejected.

Washed aggregate shall drain in hauling conveyances or stockpiles at least 12 hours before being weighed or measured for batching and for a longer time if so directed by the Engineer.

### 3-02.4 Measurement

Clearing and grubbing of the stockpile site will be measured in accordance with [Section 2-01](#) when the Proposal includes such Bid items and such Work is required on a stockpile site provided by the Contracting Agency.

Specific materials or aggregates designated in the Proposal to be in stockpile will be measured by the ton unless the Proposal shows by the cubic yard. The cubic yard volume for pay quantity will be determined by cross-sectioning the completed stockpile or by computation of the volume between the original ground surface and the stockpile surface using digital terrain modeling survey techniques.

Specific materials or aggregates designated in the Proposal to be from stockpile will be measured by the ton or by the cubic yard, whichever is shown in the Proposal. If payment is to be made on the basis of cubic yards, measurement will be made of the volume in the hauling vehicle at the point of delivery on the Roadway.

### 3-02.5 Payment

All costs involved in preparing stockpile sites shall be included in the unit Contract prices for the various Bid items being stockpiled, excepting that clearing and grubbing will be paid in accordance with [Section 2-01](#) when the Proposal includes such Bid items and such Work is required on a stockpile site provided by the Contracting Agency.

## **3-03 Site Reclamation**

### **3-03.1 Description**

This Work shall consist of reclaiming land used for borrowing material, mining for aggregates, sorting, or wasting materials as specified.

### **3-03.2 General Requirements**

#### **3-03.2(1) Contracting Agency-Provided Sites**

All borrow, quarry, or pit sites of over 3 acres in size of disturbed land or resulting in pit walls more than 30 feet high and steeper than a one to one slope which are owned or furnished by the Contracting Agency shall be reclaimed as shown in the Plans and as designated by the Engineer.

Ultimate reclamation plans are not normally required for borrow, quarry, or pit sites not meeting the above criteria or for stockpile or waste sites. However, all such sites shall be reclaimed to the extent necessary to control erosion and provide a satisfactory appearance consistent with anticipated future use.

#### **3-03.2(2) Contractor-Provided Sites**

All borrow, quarry, and pit sites of over 3 acres in size of disturbed land or resulting in pit walls more than 30 feet high and steeper than a 1:1 slope which are owned or furnished by the Contractor shall be reclaimed in accordance with the conditions and requirements of an approved reclamation permit acquired from the Department of Natural Resources.

When the Contractor obtains a reclamation permit from the Department of Natural Resources, evidence of such approval shall be furnished to the Engineer prior to any Work within the site.

Ultimate reclamation plans are not required for borrow, quarry, or pit sites not meeting the above criteria or for stockpile or waste sites. However, all such sites shall be reclaimed to the extent necessary to control erosion and provide a satisfactory appearance consistent with anticipated future use.

Compliance with the State Environmental Policy Act (SEPA) is required for sites involving more than 100 cubic yards of excavation or landfill throughout the lifetime of the site unless the local agency in which the project is located establishes a greater amount. Sites involving more than 500 cubic yards of excavation or landfill throughout the lifetime of the site always require compliance with SEPA.

Under no circumstance will the Contractor be allowed to waste material within a wetland as defined in [Section 2-03.3\(7\)](#).

### **3-03.2(3) Out-of-State Sites**

All out-of-State borrow, quarry or pit, stockpile, and waste sites which are furnished by the Contractor exclusively for use on this Contract shall be reclaimed in accordance with an approved reclamation plan that is in compliance with local area restrictions.

## **3-03.3 Reclamation Plans**

### **3-03.3(1) Contracting Agency-Provided Sites**

Reclamation plans for all borrow, quarry, or pit sites which are owned or furnished by the Contracting Agency will normally be furnished by the Contracting Agency and the requirements thereof included in the Contract documents. Should conditions require operations within a Contracting Agency-owned or Contracting Agency-furnished site not provided for in the Plans, the Contractor shall reclaim these sites in accordance with a reclamation plan furnished by the Engineer.

### **3-03.3(2) Contractor-Provided Sites**

A plan will not be required except on specific request for those sources of material for which the Contractor has obtained a valid surface mining permit issued by the Department of Natural Resources and has paid all required fees.

## **3-03.4 Construction Requirements**

### **3-03.4(1) Erosion Control**

All sites owned or furnished by the Contracting Agency will specify the kind and amount of erosion control, if any, and include the requirements thereof in the Contract documents.

All sites owned or furnished by the Contractor shall, if specified on a reclamation plan approved by the Engineer, require erosion control in accordance with [Section 8-01](#) or plant materials in accordance with [Section 8-02](#).

### **3-03.4(2) Deviations From Approved Reclamation Plans**

Reclamation of any site which deviates from the approved reclamation plan will not be permitted without first revising the approved reclamation plan and obtaining the approval of the Engineer.

### **3-03.5 Payment**

#### **3-03.5(1) Contracting Agency-Provided Sites**

All costs in connection with reclaiming sites to the full extent required by the Contract shall be included in the costs of other items of Work involved in the project.

Payment will be made for any Work described in Sections [8-01](#) or [8-02](#) at applicable unit Contract prices.

#### **3-03.5(2) Contractor-Provided Sites**

All costs involved in complying with the requirements of a reclamation permit acquired from the Department of Natural Resources, complying with the requirements of a reclamation plan approved by the Engineer, or with reclaiming sites to the full extent required by the Contract shall be included in the costs of other items of Work involved in the project.

## 3-04 Acceptance of Aggregate

### 3-04.1 Description

This work shall consist of acceptance of aggregate as provided for under statistical or nonstatistical evaluation.

All aggregates shall meet the requirements in [Section 9-03](#).

Acceptance of aggregate by statistical evaluation is administered under [Section 1-06.2](#). Statistical evaluation will be used for an aggregate material when the proposed plan quantity of the aggregate material exceeds two sublots as shown in [Table 1](#).

Nonstatistical evaluation will be used for the acceptance of aggregate materials when the proposed plan quantity is equal to or less than two sublots as shown in [Table 1](#).

### 3-04.2 Materials

Material shall meet the requirements of the following section:

Aggregates [9-03](#)

### 3-04.3 Construction Requirements

#### 3-04.3(1) General

For the purpose of statistical and nonstatistical acceptance sampling and testing, all test results obtained for a material type will be evaluated collectively. Sublot sampling and testing will be performed on a random basis at the frequency of one sample per sublot. Based on plan quantities, the sublot size will be determined to the nearest 100 tons (50 cy). The maximum sublot size will be as defined in [Table 1](#).

#### 3-04.3(2) Point of Acceptance

The point of acceptance shall be as designated by the Engineer. Multiple sources shall not be placed within the same limits of each separate spreading operation or in such a way that the intermingling of different sources occurs. Individual compaction lifts may be of a different source.

#### 3-04.3(3) Sampling

The sampling of aggregate materials shall be performed on a random basis using WSDOT [T 716](#), Method of Random Sampling. Samples for acceptance testing shall be obtained by the Engineer, or their designated representative. If ordered by the Engineer, the Contractor shall obtain the sample in the presence of the Engineer or their representative. The aggregate material shall be sampled in accordance with FOP for AASHTO R 90 and [Section 1-05.6](#). The sample size shall be equal to the minimum requirements of FOP for AASHTO R 90.

### 3-04.3(4) Testing Results

The results of all acceptance testing performed in the field and the Composite Pay Factor (CPF) of the lot after three sublots have been tested will be available to the Contractor through WSDOT's website.

### 3-04.3(5) Nonstatistical Evaluation

Each lot of aggregate materials produced under nonstatistical evaluation and having all constituents falling within the specification limits shall be accepted with no further evaluation. When one or more constituents fall outside the specification limits, the material will be statistically evaluated. A minimum of three sublots will be sampled and tested, when less than three sublots exist additional samples shall be tested to provide a minimum of three sets of results for evaluation. The test results of the sublots shall be evaluated in accordance with [Section 1-06.2](#) using the price adjustment factors from [Table 2](#) to determine the appropriate CPF. The maximum CPF shall be 1.00. If the CPF is below 1.00 but is equal to or above 0.75, a price adjustment will be calculated in accordance with [Section 3-04.3\(8\)](#).

When the aggregate does not have established price adjustment factors, use the appropriate price adjustment factors from "Other Materials" as listed in [Table 2](#).

### 3-04.3(6) Statistical Evaluation

For statistical evaluation a lot is defined as 15 sublots, the final lot will be increased to a maximum of 25 sublots. All test results obtained for a material type will be evaluated in accordance with [Section 1-06.2](#). Each lot of aggregate materials produced under statistical evaluation will be determined to be acceptable if the Composite Pay Factor (CPF) when calculated in accordance with [Section 1-06.2\(2\)](#) using the price adjustment factors from [Table 2](#) is 1.00 or greater. The Contractor shall be paid the unit bid price for aggregate materials with a CPF of 1.00 or greater. If the CPF is below 1.00 but is equal to or above 0.75, calculate the price adjustment in accordance with [Section 3-04.3\(8\)](#).

When the aggregate does not have established price adjustment factors, use the appropriate price adjustment factors from "Other Materials" as listed in [Table 2](#).

### **3-04.3(7) Rejected Work**

#### **3-04.3(7)A General**

Work that is defective or does not conform to Contract requirements shall be rejected.

#### **3-04.3(7)B Rejection by Contractor**

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

#### **3-04.3(7)C Rejection Without Testing**

The Engineer may, without sampling, reject any load or stockpile that appears defective. Material rejected before placement shall not be incorporated into the work. Any rejected work shall be removed.

No payment will be made for the rejected materials unless the Contractor requests that the rejected material be tested. If the Contractor elects to have the rejected material tested, a minimum of three representative samples shall be obtained and tested. Acceptance of rejected material will be based on conformance with the statistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material; in addition, the cost of sampling and testing shall be borne by the Contractor. If the CPF is greater than or equal to 0.75, the cost of sampling and testing will be borne by the Contracting Agency. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than 0.75, compensation for the rejected mix will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

#### **3-04.3(7)D Lots and Sublots**

##### **3-04.3(7)D1 A Partial Sublot**

In addition to the preceding random acceptance sampling and testing, the Engineer may also isolate from a normal subplot any material that is suspected of being defective. Such isolated material will not include an original sample location. A minimum of three random samples of the suspect material will be obtained and tested. The material will then be evaluated as an independent lot in accordance with [Section 1-06.2\(2\)](#).

##### **3-04.3(7)D2 An Entire Sublot**

An entire subplot that is suspect of being defective may be rejected. When a subplot is rejected a minimum of two additional samples from this subplot will be obtained. These additional samples and the original subplot will be evaluated as an independent lot in accordance with [Section 1-06.2\(2\)](#).

### 3-04.3(7)D3 A Lot in Progress

The Contractor shall shut down operations and shall not resume placement of the aggregate until such time as the Engineer is satisfied that material conforming to the specification can be produced:

- a. When the Composite Pay Factor (CPF), for a lot in progress, is less than 1.00 and the contractor is taking no corrective action; or
- b. When the Pay Factor (PF) for any component of the lot in progress, is less than 0.95 and the contractor is taking no corrective action; or
- c. When either the  $PF_i$  for any constituent or the CPF for a lot in progress is less than 0.75.

### 3-04.3(7)D4 An Entire Lot

An entire lot with a CPF of less than 0.75 will be rejected.

### 3-04.3(8) Price Adjustments for Quality of Aggregate

All aggregate material will be subject to price adjustments. The maximum attainable Composite Pay Factor (CPF) shall be 1.00. The aggregate Compliance Price Adjustment for acceptance of the aggregate will be calculated as follows:

Aggregate Compliance Price Adjustment = (Composite Pay Factor - 1.00)  
(quantity of material) (unit bid price or Contingent Unit Price as shown in Table 1,  
whichever is higher)

For aggregate materials lacking a separate unit bid price, the unit bid prices shall be taken as the value listed in [Table 1](#) for "Contingent Unit Price".

If a component is not measured in accordance with these specifications, its individual pay factor will be considered 1.00 in calculating the composite pay factor.

### 3-04.4 Vacant

### 3-04.5 Payment

“Aggregate Compliance Price Adjustment”, by calculation.

“Aggregate Compliance Price Adjustment” shall be calculated and paid for as described under [Section 3-04.3\(8\)](#) Price Adjustments for Quality of Aggregate.

**Table 1 Aggregate Acceptance Parameters**

<i>Standard Specifications</i>	<i>Item</i>	<i>Maximum Sublot Size (Tons)</i>	<i>Maximum Sublot Size (CY)</i>	<i>Contingent Unit Price Per Ton</i>	<i>Contingent Unit Price Per CY</i>
9-03.1	Concrete Aggregate (except pavement)	2000	1000 <sup>1</sup>	\$15.00 <sup>2</sup>	\$30.00 <sup>2</sup>
9-03.1	Concrete Aggregate (pavement)	4000	2000 <sup>1</sup>	\$15.00 <sup>2</sup>	\$30.00 <sup>2</sup>
9-03.4(2)	Crushed Screening <sup>3</sup>	1000	500	\$20.00	\$40.00
9-03.8(2)	HMA Aggregate	2000		\$15.00	
9-03.9(1)	Ballast	2000	1000	\$20.00	\$40.00
9-03.9(2)	Permeable Ballast	2000	1000	\$25.00	\$50.00
9-03.9(3)	Crushed Surfacing	2000	1000	\$20.00	\$40.00
9-03.9(4)	Maintenance Rock	2000	1000	\$20.00	\$40.00
9-03.10	Gravel Base	4000	2000	\$15.00	\$30.00
9-03.11(1)	Streambed Sediment	500	250	\$30.00	\$60.00
9-03.12(1)A	Gravel Backfill for Foundations Class A	1000	500	\$30.00	\$60.00
9-03.12(1)B	Gravel Backfill for Foundations Class B	1000	500	\$30.00	\$60.00
9-03.12(2)	Gravel Backfill for Walls	1000	500	\$30.00	\$60.00
9-03.12(3)	Gravel Backfill for Pipe Zone Bedding	1000	500	\$30.00	\$60.00
9-03.12(4)	Gravel Backfill for Drains	500	250	\$30.00	\$60.00
9-03.12(5)	Gravel Backfill for Drywells	500	250	\$30.00	\$60.00
9-03.13	Backfill for Sand Drains	2000	1000	\$30.00	\$60.00
9-03.13(1)	Sand Drainage Blanket	4000	2000	\$30.00	\$60.00
9-03.14(1)	Gravel Borrow	4000	2000	\$15.00	\$30.00
9-03.14(2)	Select Borrow	4000	2000	\$15.00	\$30.00
9-03.14(4)	Gravel Borrow for Structural Earth Walls	4000	2000	\$30.00	\$60.00
9-03.17	Foundation Material, Class A and B	1000	500	\$25.00	\$50.00
9-03.18	Foundation Material Class C	1000	500	\$25.00	\$50.00
9-03.19	Bank Run Gravel for Trench Backfill	4000	2000	\$30.00	\$60.00

<sup>1</sup>Based on 1000 CY of Concrete.

<sup>2</sup> Price adjustment only applies to the actual quantity of aggregate used in the concrete.

<sup>3</sup>Contingent unit price per S.Y. is \$0.30.

Table 2 Price Adjustment Factors

Standard Specifications	Item	Maximum Size Sieve: 100% Pass	Nominal Maximum Size Sieve: 100% Pass <sup>1</sup>	Other Specifications and Larger Sieves #4	Specification Sieves: #8 to #100	#200 Sieve	Sand Equivalent	Fracture <sup>2</sup>	Other
9-03.1	Concrete Aggregate (all concrete aggregate -including pavement)	2	2	2	10	20			
9-03.4(2)	Crushed Screening	2	2	5	5	20	15	15	Uncompacted Void Content 15
9-03.8(2)	HMA Aggregate						15	15	Dust Ratio 15
9-03.9(1)	Ballast	2	2	5	5	10	15		Dust Ratio 15
9-03.9(2)	Permeable Ballast	2	2	5	5			15	
9-03.9(3)	Crushed Surfacing	2	2	5	5	10	15	15	
9-03.9(4)	Maintenance Rock	2	2	5	5	10	15	15	
9-03.10	Gravel Base		2	5	5	6	10		Dust Ratio 10
9-03.11(1)	Streambed Sediment	2	2	5	5	10			
9-03.12(1)A	Gravel Backfill for Foundations Class A <sup>3</sup>								
9-03.12(1)B	Gravel Backfill for Foundations Class B		2	5		6	10		Dust Ratio 10
9-03.12(2)	Gravel Backfill for Walls	2	2	5		6	10		Dust Ratio 10
9-03.12(3)	Gravel Backfill for Pipe Zone Bedding	2	2	5	5	6	10		
9-03.12(4)	Gravel Backfill for Drains	2	2	5		6			
9-03.12(5)	Gravel Backfill for Drywells	2	2	5		6			
9-03.13	Backfill for Sand Drains		2	5	3	10			
9-03.13(1)	Sand Drainage Blanket		2	5	3	10			
9-03.14(1)	Gravel Borrow	2	2	5	5	5	10		
9-03.14(2)	Select Borrow	2	2	5	5	6	10		
9-03.14(4)	Gravel Borrow for Structural Earth Walls	2	2	5	5	5	10		Other <sup>4</sup>
9-03.17	Foundation Material, Class A & B		2	3					
9-03.18	Foundation Material Class C	2		3					
9-03.19	Bank Run Gravel for Trench Backfill	2	2	5		6	10		Dust Ratio 10
	Other Materials	2	2	5	5	10	15	15	Dust Ratio 10

<sup>1</sup>For Aggregate, the nominal maximum size sieve is the largest standard sieve opening listed in the applicable specification upon which more than 1-percent of the material by weight is permitted to be retained. For concrete aggregate, the nominal maximum size sieve is the smallest standard sieve opening through which the entire amount of aggregate is permitted to pass.

<sup>2</sup>Price adjustment factor applies where criteria is contained in the material specification.

<sup>3</sup>Use the price adjustment factors for the material that is actually used.

<sup>4</sup>Resistivity 10, pH 10, Chlorides 5, and Sulfates 5.