

**SECTION 260.00 – PHASE V SPECIAL PROVISION REPORT**

**260.01 Source Identification.**

**260.01.01 Designated Sources.**

**260.01.02 Contractor Furnished Sources.**

**260.01.03 Cost.**

**260.01.04 Examples of Source Identification Inserts.**

**260.02 Current Specifications and Minimum Testing Requirements.**

**260.03 Special Provisions.**

**260.03.01 Modification of Existing Specifications.**

**260.03.02 Modification of Existing MTRs or Development of New MTRs.**

**260.03.03 New Specification.**

**260.04 Notes to Contractor.**

**260.05 Notes to Designer.**

**260.06 Notes to Resident Engineer.**

## SECTION 260.00 – PHASE V SPECIAL PROVISION REPORT

This section of the Phase V report should identify the project and location and include a short description of the project scope.

The purposes of the special provision report are to:

1. List aggregate source and cost of materials for the project;
2. Provide materials acceptance requirements, where not addressed in the standard requirements, for materials to be incorporated into the project,
3. Provide special provision specifications for materials and/or construction activities not covered in the standard specifications;
4. Provide Notes to Contractor for materials and/or construction activities;
5. Provide Notes to Designer to clarify specification and note intent to the designer and provide additional information that will not normally be included in the contract document;
6. Provide Notes to Resident Engineer that give additional information on administering the work described in the special provisions or modifications and will not normally be included in the contract.

Information included in the Phase V Special Provision Report is intended to be inserted into the proposal by the designer as it was written by the Materials section. Therefore, it is very important that information provided in the Phase V Report be written clearly and concisely using language and formatting consistent with the standard specifications. The approved Phase V report may be provided to the Designer electronically in Microsoft Word format to facilitate inclusion in the proposal.

The District Materials Engineer or materials consultant must coordinate with the designer to ensure the requirements of the Materials Phase V report are included in the Final Design submittal. This coordination can be done by reviewing the Final Design submittal and providing written comments.

Delay of project advertisement or project changes that occur after the Final Design package often necessitate revisions to the Phase V report. The Phase V report must be reviewed and revised as necessary when any of the following occur after the original Phase V report is issued and prior to project advertisement:

- New Supplemental Specifications are released and are to be used on the project,
- Revised minimum testing requirements (MTRs) are released,
- Additional bid items are added to the project,
- Design changes are made that have an impact on materials specification.

The District Materials Engineer or materials consultant must coordinate with the designer to ensure the requirements of the Revised Materials Phase V report are included in the PSE submittal advertised.

**260.01 Source Identification.** Materials source issues tend to “set the tone” for a project; thus the source identification section in the contract should be as concise as possible to avoid misinterpretation by the contractor and construction/inspection personnel. It is undesirable to provide information in this section that is repeated elsewhere in the contract.

Listing of specific aggregate and embankment items in this section should be avoided due to potential conflict involving other materials source and design requirements.

The ITD contract format begins with a reference to the Standard Specifications, Standard Special Provisions (S.S.P.'s), standard inserts, etc. Identification of individual specifications in this section tends to decrease emphasis on other specification requirements. For these reasons an initial statement in the Source Identification section referring the reader to specifications in general and for emphasis is considered optional. Any additional information is to be covered in the body of the Phase V report and the contract.

**260.01.01 Designated Sources.** Identify the source(s) and give a brief general description of those materials for which the designated source is being identified. It is undesirable to list specific pay items in this section and specific pay items may be listed only if there are no other known sources for those items in the area.

**260.01.02 Contractor Furnished Sources.** Give a brief general description of those materials for which a contractor furnished source is being identified. Avoid listing specific pay items.

**260.01.03 Cost.** A brief guidance statement regarding cost may be included in each of the above sections or a single brief guidance statement covering cost issues for both sections may follow. If contractor furnished sources are being specified, the contractor is responsible for all costs in obtaining approval to use the source(s) and inclusion of cost information in the report is optional.

**260.01.04 Examples of Source Identification Inserts.** In developing the Source Identification clauses, consider the appropriate level of information to be provided to potential bidders in view of District experience and knowledge of sources in the area.

**EXAMPLE #1** (specific source not anticipated; however, use of a state owned source is anticipated):

### **SOURCE IDENTIFICATION**

Refer to specifications.

Designated sources. Designated sources are not identified for this project.

Contractor furnished sources. The contractor shall furnish approved source(s) for all materials to be embanked or processed for placement. A list of State-owned or State-controlled sources is available at the District office. Written approval of the contractor's source operation plan will be required prior to acceptance of material or use of State owned or State controlled sources.

Cost. The use of State-owned sources will incur a royalty fee of \$0.65 per cubic yard or \$0.85 per cubic meter.

**EXAMPLE #2** (depleting a state owned source):

**SOURCE IDENTIFICATION**

Refer to the specifications.

Designated sources. Source Ab-123-s is identified for use for all materials to be embanked or processed for placement on this project. A source investigation plat and proposed source operation plan are included in the plans. Reclamation of the source shall commence subsequent to roadway construction.

Contractor furnished sources. Source Ab-123 is anticipated to contain sufficient quantities of acceptable materials. If the source becomes depleted prior to substantial completion, the contractor will be required to furnish an approved source for remaining materials in accordance with the specifications.

Cost. The use of source Ab-123, incurs a royalty fee of \$0.65 per cubic yard or \$0.85 per cubic meter.

**EXAMPLE #3** (numerous contractor furnished and state sources in the area):

**SOURCE IDENTIFICATION**

Designated sources. Designated sources are not identified for this project.

Contractor furnished sources. The contractor shall furnish approved source(s) for all materials to be embanked or processed for placement.

Cost. The contractor will assume all costs incurred in obtaining approvals for use of source(s).

**EXAMPLE #4** (source identified for rip-rap pay item, assuming no other known sources in the area):

**SOURCE IDENTIFICATION**

Refer to the specifications.

Designated sources. Source Jo-456-s in Jones County is identified for use for Riprap. This source represents a 37 mile haul distance. Use of Jo-456 other than loading and hauling riprap between the hours of 7:00 am and 7:00 pm will require a county use permit.

Contractor furnished sources. The contractor shall furnish approved source(s) for all materials to be embanked or processed for placement.

Cost. Source Jo-456-s is approved for use for Riprap only at no cost to the contractor. The contractor will assume all costs incurred in obtaining approvals for use of source(s).

**EXAMPLE #5** (Differing royalty rates for sources in the area):

**SOURCE IDENTIFICATION**

Refer to the specifications.

Designated sources. Existing embankment material is identified in the plans for use in construction of new embankments.

Contractor furnished sources. The contractor shall furnish approved source(s) for all other materials to be embanked or processed for placement. A list of State-owned or State-controlled sources is available at the District office. Written approval of the contractor's source operation plan will be required prior to acceptance of material or use of State owned or State controlled sources.

Cost. The contractor will assume all costs incurred in obtaining approvals for use of source(s).

**EXAMPLE #6** (chip seal project):

**SOURCE IDENTIFICATION**

Designated sources. Cover coat material is stockpiled at Source Ab-345. This material will require washing, screening, and retesting for gradation to be in compliance with current specifications for Class 4 Cover Coat Material.

Contractor furnished sources. Contractor furnished sources are not identified.

Cost. Sufficient quantities of cover coat material stockpiled at Source Ab-345 are available to the contractor at no charge for use on this project. The royalty fee for this material has been paid under a previous contract. No additional payment will be made for washing, screening, and retesting of this material.

**EXAMPLE #7** (LHTAC project, ITD controlled sources not allowed):

**SOURCE IDENTIFICATION**

Designated sources. Designated sources are not identified for this project.

Contractor furnished sources. The contractor shall furnish approved source(s) for all materials to be embanked or processed for placement. ITD controlled sources will not be allowed for this project.

Cost. The contractor will assume all costs incurred in obtaining approvals for use of source(s).

**EXAMPLE #8** (written approval from the District to specify ITD controlled sources has been coordinated by LHTAC):

**SOURCE IDENTIFICATION**

Designated sources. Designated sources are not identified for this project.

Contractor furnished sources. The contractor shall furnish approved source(s) for all materials to be embanked or processed for placement.

Use of ITD controlled source(s) will be allowed for this project if approved. For ITD controlled sources, the following shall apply.

Timely review of the Contractor's request to use ITD controlled source(s) for this local agency project shall be at the sole convenience of ITD.

Material produced from ITD controlled sources shall require that the primary reject screen be no more than the nominal maximum size of the material being produced unless directed by the Engineer upon evaluation of the product or otherwise indicated in the Standard Specifications.

Cost. The contractor will assume all costs incurred in obtaining approvals for use of source(s).

**260.02 Current Specifications and Minimum Testing Requirements.** This section is used to identify the current version of the Standard and Supplemental Specifications and the current version of the Quality Assurance Manual containing the minimum testing requirements (MTRs). Should these change before the project is advertised, a review is required to ensure necessary changes to the report are made.

The minimum testing requirements (MTRs) for materials used in standard applications and paid for under standard bid items are published in [Section 270.00](#) of the ITD [Quality Assurance Manual](#). The Quality Assurance Manual is contractual by reference. MTRs must be identified for all materials incorporated into the project and provide the basis for acceptance (and payment) of the material. The MTRs are expected to provide satisfactory evidence that the Department received materials with the characteristics and quality specified in the contract. Non-statistical acceptance of material is typically by one or a combination of the following:

- Acceptance testing performed by the Department
- Manufacturer's certification accepted by the Department
- Certification with quality control or other test results provided by the supplier or manufacturer and accepted by the Department, and
- Inspection by the Department.

Some material characteristics for some standard bid items are accepted on a statistical basis as detailed in the Department's Quality Assurance Special Provision (QA SP). These items include 301 Granular Subbase, 303 Aggregate Base, 307 Open Graded Rock Base, 403 and 404 Cover Coat Material, 405 Plant Mix Pavement, 412 Plant Mix Seal and 635 Anti-skid Material. For these items, acceptance for the given characteristic may be based on Contractor acceptance testing in combination with verification testing by the State.

List in this section the current Standard and Supplemental Specification versions and the current Quality Assurance Manual version upon which the report is based.

**260.03 Special Provisions.** This section includes any specification regarding the incorporation of materials or construction activities not covered in the Standard Specifications, Supplemental Specifications or the standard Minimum Testing Requirements.

Special Provisions are developed in two ways: (1) Modification of an existing Standard or Supplemental Specification or standard minimum testing requirement, and (2) creating a project specific specification which includes bid item(s) and minimum testing requirements.

**260.03.01 Modification of Existing Specifications.** Refer to Standard Specification page, subsection, and title in the format used for Supplemental Specifications. Use terms such as add, delete, modify, or revise to alter the Specification. Modification will not create bid items unless measurement and payment are to be accomplished by a different method. Always use English units unless metric measurements are stipulated for the project.

The examples below illustrate typical applications of Modification of existing standard specifications, supplemental specifications, and Standard Special Provisions (S.S.P.).

ON PAGE 473, STANDARD SPECIFICATION, SUBSECTION 703.11, AGGREGATE FOR GRANULAR SUBBASE

Add the following:

The material shall have a Los Angeles Wear (AASHTO T96) of 45 or less. Testing will be required as part of the source approval.

ON SHEET 72 OF 85 OF THE JULY 1998 SUPPLEMENTAL SPECIFICATIONS IN REFERENCE TO SUBSECTION 635.03, CONSTRUCTION REQUIREMENTS

Delete the second sentence and substitute the following:

Stockpiles shall be constructed in accordance with Standard Specification, Subsection 106.11 and shall be flat-topped and rectangular in shape.

ON SHEET 1 OF 1 OF SSP-307 OPEN GRADED ROCK BASE (ROCK CAP), STANDARD SPECIFICATION, SUBSECTION 307.01, DESCRIPTION

Delete the text and substitute the following:

This work shall consist of loading, hauling, placing, and compacting open-graded rock base (rock cap) as shown in the typical sections or as directed.

**260.03.02 Modification of Existing MTRs or Development of New MTRs.** The [ITD Quality Assurance Manual](#) includes standard MTRs typically applicable to materials used in standard applications and paid for under standard bid items. For every project, an evaluation of the materials to be incorporated into the project needs to be conducted to determine if the standard MTRs are applicable. In many cases, the standard MTRs are not appropriate or feasible due to application or quantity of material. In other cases, new MTRs need developed. The ITD Quality Assurance Manual and the AASHTO, ASTM and WAQTC test methods are recommended references when revising or developing MTRs. When modified or new MTRs are needed they must be included in the Phase V Report and become part of the contract documents.

A review of project bid items and existing MTRs is required. For materials used in non-standard, non-roadway or temporary applications minimum testing requirements must be evaluated and developed as necessary. Consultation with the District Materials Engineer and/or HQ Materials Engineer is recommended.

The examples below illustrate modified and new MTRs:

ON PAGE 473, STANDARD SPECIFICATION, SUBSECTION 703.11, AGGREGATE FOR GRANULAR SUBBASE

Add the following:

A portion of the granular subbase will be used for temporary detour. The granular subbase used in the temporary detour will not require nuclear density testing. Field density acceptance will be by inspection. The number of roller passes will be determined by the Engineer. Rolling equipment shall meet Section 306 Rolling.

ON SHEET 72 OF 85 OF THE JULY 1998 SUPPLEMENTAL SPECIFICATIONS IN REFERENCE TO SUBSECTION 635.03, CONSTRUCTION REQUIREMENTS

Add the following:

Moisture content of the anti-skid material at the time of stockpiling shall not exceed 4 percent. Moisture testing will be per AASHTO T255 at a minimum frequency of one test every 1000 Tons (900 t).

**260.03.03 New Specification.** New Special Provision Specifications will be numbered consecutively, i.e., SP-1, SP-2, etc., and each given a title. It is not critical to number the SPs in the Phase V report because the projects normally have other SPs and the designer will renumber them in the contract. Each specification will typically consist of the following sections:

- Description - What work is included.
- Materials - Specification requirements for materials used.
  - Materials Acceptance. – Identify the basis of acceptance of all materials incorporated into the work. If the acceptance requirements are not identified, the basis of acceptance defaults to the procedures described in the Quality Assurance Manual.
- Construction Requirements - Equipment, procedures, and results required.
- Method of Measurement - How work is to be measured.
- Basis of Payment - How work is to be paid.

At the District's option, Erosion and Sediment Control or Roadside SP's should be included here.

Some Special Provisions are developed to create project specific bid items and, therefore, sections on materials and/or construction requirements are not needed. On more complex specifications, these sections may be further subdivided for individual materials, procedures, and testing requirements or to create multiple bid items.

Special Provisions will govern over standard specifications, supplemental specifications, and plans. Special attention must be given to the way the SP is worded. It cannot be assumed that all standard specifications will apply to the SP. If the intent of the SP is to refer to a materials or construction requirement from another section, it must be referenced in the SP.

Normally, SPs are not written using dual units as would be the case when modifying an existing specification. They should be written using the units established in the plans.

Special provisions must include materials acceptance requirements. A Special Provision pay item may include multiple different materials, all of which require acceptance. MTRs for each material incorporated are determined based on the following criteria:

- When the material is included in the standard MTR tables of the [ITD Quality Assurance Manual](#) and is being used in a standard application, the MTR table acceptance requirements will be used and will be listed in the special provision. Special Provision items often consist of small quantities however may be critical to the intent of the design. Consult with the designer as needed and specify the number of tests suitable to ensure the constructed item meets the intent of the design.
- When the special provision incorporates material that is not included in the standard MTR tables of the ITD Quality Assurance Manual or when the material is not being used in a standard application, MTRs must be determined. Consultation with the District Materials Engineer and/or HQ Materials Engineer is recommended.
- When the material is required by the special provision to meet a given specification, such as an ASTM or AASHTO specification, at minimum, acceptance of material will require a manufacturer's certification.

MTRs developed for special provisions are included in the special provision under the section "Materials Acceptance".

The examples below illustrate creating new Special Provisions with pay items.

#### **SP- COLD-MILLING**

Description. This work shall consist of cold-milling the existing plant mix surfacing to the depths and widths shown on the typical section(s) in the plans and in accordance with these special provisions.

Materials. The cold-milling machine shall be equipped with automatic depth controls. The depth control equipment shall produce a specified depth of cut to within 3 mm tolerance. The milling operations shall be referenced from a minimum 3 meter ski. An independent grade control, such as a string line rather than a ski, may be used in areas where this type of control is deemed appropriate. For this type of operation, the independent grade control shall be established and maintained by the contractor in an acceptable manner.

The cold-milling machine shall be operated so as not to produce fumes or smoke.

Sweeping with pick-up type brooms shall be required. Any tailings from the milling operation shall be loaded and hauled to the stockpile site the same day. Brooming shall follow closely until all loose material has been removed. Brooming will be considered incidental work and will not be paid for separately. Care shall be taken to prevent milled plant mix from being spilled or swept onto any lane(s) used by traffic. Any loose material shall be promptly removed from these areas.

Construction Requirements. The texture produced by the milling shall be a uniform surface that will provide optimum conditions for the placement of the plant mix pavement which is to follow. The cold-milling machine shall be limited to a forward speed of 12 meters per minute to obtain the desired results.

The depth and width of the cut shall be indicated on the typical section(s) or as directed. The final cut shall result in a uniform surface conforming to the typical section(s).

Method of Measurement. Milling plant mix surfacing will be measured by the square meter. The quantity to be paid for will be computed from the planed area irrespective of the number of passes required.

Basis of Payment. Payment for accepted work will be made as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
Cold-Milling	m <sup>2</sup>

The contract price paid per square meter for milling plant mix surfacing shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in milling the plant mix surfacing, and transporting and placing the material removed, as specified in these special provisions and as directed.

### **SP- BACKFILL FOR PIPE CULVERTS**

Description. This item shall consist of furnishing and placing backfill materials consisting of approved sand or gravel, or a mixture of approved sand or stone screening with crushed rock, provided there is a substantial excess of sand or stone screening in the mixture.

Materials. All materials shall pass a 3-inch square opening. Material shall meet the requirements of [Standard Specification, Subsection 703.00](#), Aggregates.

Gradation and compaction acceptance will be by visual inspection.

Construction Requirements. Backfill shall be placed as shown in the plans. Care shall be exercised to protect the culvert.

Method of Measurement. The method of measurement will be per cubic meter (cubic yard), in accordance with [Standard Specification, Subsection 210.04](#), Method of Measurement for Compacting Backfill.

Basis of Payment. Payment for accepted work will be made as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
Backfill for Pipe Culverts	m <sup>3</sup>

**SP- HYDRATED LIME FOR PLANT MIX ADDITIVE**

Description. This work shall consist of providing hydrated lime for incorporation into plant mix pavement, in accordance with these specifications.

Materials. Hydrated lime for aggregate pretreatment shall conform to the requirements of ASTM C 207, Type N. In addition, the residue retained on a No.200 (75  $\mu$ m) sieve shall not exceed 10 % when determined in accordance with ASTM C 110. (Drying of the residue in an atmosphere free from carbon dioxide will not be required.)

Hydrated lime will be accepted by manufacturer's certification in accordance with the requirements outlined in the Department's Quality Assurance Manual. Sampling and testing to verify the certification will be at the option of the Department.

Construction Requirements.

Mix Design. The contractor's mix design shall include a job mix formula that includes 1.5% hydrated lime in the pavement mix design. Hydrated lime shall be incorporated into the aggregate and included in the gradation for establishing the laboratory mix design. The weight of lime shall be included in the total weight of the material passing the No.200 (75  $\mu$ m) sieve.

Addition of Hydrated Lime. The hydrated lime shall be added to the aggregate such that loss of hydrated lime is minimal or nonexistent. Placement of the lime on an open conveyer belt shall not be permitted. Hydrated lime shall be added to the aggregate in accordance with one of the following methods:

- (a) *Lime Slurry Added to Aggregate.* The hydrated lime shall be added to the aggregate in the form of a slurry and then thoroughly mixed in an enclosed pugmill. The slurry shall contain a minimum of 70 percent water by weight.
- (b) *Dry Lime Added to Wet Aggregate.* The dry hydrated lime shall be added to wet aggregate (a minimum of three percent above saturated surface dry) and then thoroughly mixed in an enclosed pugmill.

The lime-aggregate mixture may be fed directly into the hot plant after mixing or it may be stockpiled for not more than 90 days before introduction into the plant for mixing with the bituminous material. The hydrated lime may be added to the aggregate before combining at the cold feed and stockpiled, by adding 75 percent of the lime to the aggregate passing the No.4 (4.75 mm) sieve and 25 percent to the aggregate retained on the No.4 (4.75 mm) sieve.

Method of Measurement. Hydrated Lime will be measured by the metric ton (ton). Batch weights will not be permitted as a method of measurement.

Basis of Payment. Payment for accepted work will be as follows:

Pay Item	Pay Unit
Hydrated Lime for Plantmix Additive	Ton (t)

All other work and material shall be incidental unless provided for under other items in the contract.

**SP- ASPHALTIC BIKEWAYS, PATHWAYS, AND TRAILS**

Description. This work shall consist of clearing and grubbing, grading, base and plant mix pavement for Bikeways, Pathways, and Trails in accordance with these specifications and in reasonably close conformity with the lines, grades, thicknesses, and typical cross section(s) shown on the plans.

Materials. All aggregate shall be obtained from approved Contractor Furnished Sources. Asphalt binder shall meet the applicable requirements of [Subsection 702- Asphalt](#).

A. Plant mix for Bikeways, Pathways, and Trails. The bituminous plant mix shall be composed of a mixture of 1/2- inch or 3/8-inch nominal maximum size aggregate, natural filler or commercial additives, if required, and asphalt binder.

The asphalt binder shall be PG 58-28 unless other wise approved. A minimum 1/2 percent antistrip additive shall be used.

The stability shall be greater than 28. Air voids shall be between 2% and 4%.

Asphalt content shall be sufficient to provide a minimum of 6 microns film thickness.

A maximum of 20% reclaimed asphalt pavement (RAP) may be included as part of the job mix formula. Reclaimed asphalt pavement shall be processed as needed to pass through a 1/2-inch screen prior to introduction to the mix.

1/2-inch or 3/8-inch Class III plant mix pavement may be substituted for Plant Mix for Bikeways, Pathways, and Trails.

Aggregate for Plant Mix for Bikeways, Pathways, and Trails may be provided in a single stockpile. Aggregate shall be crushed stone or crushed gravel of such gradation that when combined with other required aggregate fractions and fillers, in proper proportion, the resultant mixture shall meet one of the following aggregate gradations.

<b>SIEVE SIZE</b>	<b>NOMINAL MAXIMUM SIZE</b>	
	<b><u>1/2 in.</u></b> (12.5mm)	<b><u>3/8 in.</u></b> (9.5 mm)
1 in (25 mm)	100	
3/4 in. (19 mm)	100	
1/2 in. (12.5mm)	95-100	100
3/8 in. (9.5mm)	75-90	90-100
No. 4 (4.75 mm)	50-75	60-85
No.8 (2.36 mm)	35-60	40-65
No. 30 (0.60mm)	15-35	20-40
No.50 (0.30 mm)	10-25	12-28
No. 200 (0.075 mm)	4-8	6-10

The aggregate shall not show a loss of more than 40 in the Los Angeles Abrasion Test.

The aggregate as crushed shall have a sand equivalent of not less than 30.

**B. Aggregate for Base for Bikeways, Pathways, and Trails.** Aggregate shall conform to one of the following gradations when tested in accordance with AASHTO T27 with no wash required:

SIEVE SIZE	NOMINAL MAXIMUM SIZE		
	<b>3/8 in.</b> (9.5 mm)	<b>1/2 in.</b> (12.5 mm)	<b>3/4 in.</b> (19 mm)
<b>PERCENT PASSING</b>			
1 in. (25 mm)			100
3/4 in. (19 mm)		100	90-100
1/2 in. (12.5 mm)	100	90-100	
3/8 in. (9.5 mm)	85-100		
No. 4 (4.75 mm)	55-75	50-70	40-65
No. 8 (2.36 mm)	40-60	35-55	30-50
No. 30 (0.600 mm)	20-40	12-30	
No. 200 (0.075 mm)	3-10	3-10	3-10

The sand equivalent shall not be less than 30.

The aggregate shall not show a loss of more than 45 in the Los Angeles Abrasion Test.

**A. Plant mix Pavement.** The plant mix pavement will be accepted by certification using form [ITD-851](#). The contractor shall submit quality control test results for every 500 tons of plant mix placed, with a minimum one of test per project, indicating the asphalt content (AASHTO T308) and gradation (AASHTO T30) to verify the certification. The quality control sampling and testing shall be performed by a qualified independent laboratory and shall be submitted to the Engineer. The material shall conform to the job mix formula within the following tolerances for acceptance:

No. 4 (4.75mm) and larger sieves	+/- 7 percent
Passing No.4 (4.75mm ) to No.100 (0.15mm) sieves	+/- 5 percent
Passing No.100 (0.15mm) and smaller sieves	+/- 3 percent
Asphalt content	+/- 0.4 percent

Asphalt binder will be accepted by manufacturer's certification using form [ITD-966](#).

Plant mix pavement density acceptance will be by visual observation. The Engineer will observe the contractor's compaction operation and document equipment and compaction effort.

**B. Aggregate Base.** The aggregate base will be accepted by certification using form [ITD-851](#). The contractor shall submit quality control test results for each 1000 tons of aggregate base placed, with a minimum one of test per project, indicating gradation (AASHTO T27 with no wash required) and sand equivalent (AASHTO T176) to verify the certification. The quality control sampling and testing shall be performed by a qualified independent laboratory and shall be submitted to the Engineer. The material shall conform to one of the specified base gradations for acceptance.

Aggregate base density acceptance will be by visual observation. The Engineer will observe the contractor's compaction operation and document equipment and compaction effort.

The Engineer may elect to sample and test the material to verify the certifications. Should sampling and testing indicate material not meeting specifications, the materials shall be subject to rejection. The Engineer may allow non-specification material to be left in place with a price adjustment if the finished product is found to be capable of performing its intended purpose. The price adjustment will be 50 percent of the contract unit bid price multiplied by the total quantity of material represented by the failing test results.

### **Construction Requirements.**

A. Plant mix. The Contractor shall provide a job mix formula to the Engineer, at least five days prior to the start of paving, which meets the requirements. A qualified laboratory at the Contractor's expense shall prepare the job-mix formula. The job-mix formula shall use the type and grade of asphalt specified and the brand and source of asphalt and additives the contractor proposes to use on the project.

An acceptance test strip is not required. Plant mix placement shall not begin until authorized in writing by the Engineer.

Mixing and placement procedures shall be as specified in the appropriate portions of [Standard Specification, Subsection 405.03](#).

Compaction shall consist of four to six complete coverages with a tandem steel drum vibratory roller or as directed. Finish rolling shall consist of at least one additional coverage with a steel drum roller. Compaction equipment shall be in accordance with [Standard Specification, Subsection 306.03](#).

Profilograph testing will not be required.

Unless otherwise specified, the plant mix layer shall be 0.2' (60 mm) thick.

B. Base. Aggregate Base for Bikeways, Pathways, and Trails shall be placed in accordance with the applicable portions of [Standard Specification, Subsection 303.03](#).

Compaction shall consist of a minimum of six complete coverages with a tandem steel drum vibratory roller or as directed. Compaction equipment shall be in accordance with [Standard Specification, Subsection 306.03](#).

Unless otherwise specified, base thickness shall be 0.4' (120mm).

Method of Measurement. Plant mix for Bikeways, Pathways, and Trails shall be measured in accordance with [Standard Specification, Subsection 405.04](#). Aggregate Base for Bikeways, Pathways, and Trails shall be measured in accordance with [Standard Specification, Subsection 303.04](#).

Basis of Payment. Payment for accepted work will be as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
Plant mix for Bikeways, Pathways, and Trails	Ton (t)
Aggregate Base for Bikeways, Pathways, and Trails	Ton or CY (t or m <sup>3</sup> )

Plant mix for Bikeways, Pathways, and Trails shall be full compensation for this item. No separate payment will be made for asphalt and additives.

All other work and material shall be incidental unless provided for under other items in the contract.

*Note: These examples are for illustration purposes only and may not necessarily be accurate.*

**260.04 Notes to Contractor.** This section includes any Contractor's Notes that need to be incorporated into the contract. Contractors Notes convey specific information to the Contractor that is not covered by modifications to the Standard Specifications, Standard Supplemental Specifications or Special Provisions.

The notes to contractor are inserted into the contract by the designer as they were written by the Materials section.

The examples below illustrate typical Contractors Notes.

Excess Materials Site. Excess materials sites shall conform to the requirements of [Standard Specification, Subsection 205.03\(A\)](#), General and all excess or unsuitable material removed from the project shall become the property of the Contractor.

Soft Sub-grade Soils. The Contractor should anticipate soft, moisture sensitive sub-grade soils throughout the project. These soils will be prone to rutting or pumping under construction machinery or if they become wetter than optimum moisture content at the time of construction.

It shall be the responsibility of the Contractor to protect these soils during construction activities. The Contractor shall determine how best to achieve this requirement. No separate measurement or payment shall be made for any excavation or replacement of excavated material below sub-grade elevation made necessary from construction activities.

**260.05 Notes to Designer.** This section includes any Designer Notes that the Materials section feel will help the designer to incorporate the materials information into the contract. Designers Notes convey information to the designer about a materials item, explaining its intent or how it should be incorporated into the project. It may also be used to remind the designer to include standard materials inserts. This is information that does not belong in the contract document.

The example below illustrates typical Notes to Designer.

Insert the most current version of Standard Special Provision (S.S.P.) 308–Cement Recycled Asphalt Base Stabilization (CRABS).

**260.06 Notes to Resident Engineer.** This section includes any Resident Engineer Notes that the Materials section feels will help the Resident Engineer administer the contract. These notes convey information to the Resident Engineer about materials items, explaining its intent or how it should be administered. It may also be used to remind the inspector that certain testing equipment may be required for the work. This is information that does not belong in the contract document.

*Notes to Designer and notes to Resident Engineer should be used if they can clarify materials information.*