

**VERMONT AGENCY OF TRANSPORTATION**

# **AGGREGATE SOURCE APPROVAL PROGRAM**

## **Guidance Document**

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**Purpose:**

The purpose of the Aggregate Source Program is to evaluate aggregate sources for use as materials on Vermont Agency of Transportation (VTrans) construction projects. This guide defines the process that VTrans will employ to approve aggregate sources.

**Definition of an Approved Aggregate Source:**

An aggregate source is approved for use on projects when VTrans has determined that the source can produce aggregates that are in conformance with the material specifications detailed in the current edition of the [Vermont Agency of Transportation's Standard Specifications for Construction](#). Materials covered by the Approved Aggregate Source Program are shown below in Table 1. Materials not listed below are not subject to Aggregate Source Approval.

Table 1: Unbound and Bound Materials covered by Aggregate Source Program

Material Type		Material Code and Material Name					
Unbound Aggregate		704.04 Gravel for Subbase	704.05 Crushed Gravel for Subbase	704.06 Dense Graded Crushed Stone for Subbase	704.12 Aggregate Surface Course	704.12 Aggregate Shoulders	704.16 Drainage Aggregate
Bound Aggregate	Bituminous Concrete Aggregate	704.10 Fine Aggregate for Bituminous Concrete			704.10 Coarse Aggregate for Bituminous Concrete		
	Structural Concrete Aggregate	704.01 Fine Aggregate for Structural Concrete			704.02 Coarse Aggregate for Structural Concrete		

**Approved Aggregate Source List (AASL):**

The Approved Aggregate Source List (AASL) is a list of aggregate sources that VTrans has approved. This list will indicate each material specification the aggregate source has been approved to supply. This list will be amended as necessary to change expiration dates upon renewal and add new sources to the list as they become approved. The AASL will be published on the Construction and Materials Bureau webpage: <https://vtrans.vermont.gov/highway/construct-material>

**Aggregate Source Approval Process:**

The following details the process for an aggregate source to become approved and/or maintain approval.

**Submittal Process:**

1. Producer (owner/operator of source) completes the applicable 'VTrans Aggregate Source Approval Request Form' located on the Construction and Materials Bureau webpage: <https://vtrans.vermont.gov/highway/construct-material>. Producer will receive confirmation that the request was received through email upon submittal of the Aggregate Source Approval Request Form.

2. Producer provides VTrans with one or both of the following according to Table A1 in Appendix A:
  - a. Test Results
    - Test results from a third party [qualified](#) laboratory or an AASHTO Accredited laboratory, with the exception of petrographic analysis, which shall meet requirements stated in ASTM C 295. Test results must be dated within 12 months of the submittal. Test results shall include test data to support the material(s) the producer is requesting approval for. Test results shall be sent to:  
[AOT.AggregateSources@vermont.gov](mailto:AOT.AggregateSources@vermont.gov)
  - b. Test Samples
    - Representative sample(s) shall be delivered to the lab selected on the ‘**VTrans Aggregate Source Approval Request Form**’. The sample(s) shall meet sampling size requirements as specified in AASHTO R90 and shown in Appendix B.

The specific tests required for approval depend on the material specification and whether the request is for a new source or a renewal of an existing source. The Producer may reach out to the email below to determine if the source is considered an existing source. An existing source is a source that VTrans has historical data that is dated within the last five years and that data is associated with the material(s) the source wishes to be approved for.

All sample deliveries shall be coordinated through email and delivered to one of the following locations: [AOT.AggregateSources@vermont.gov](mailto:AOT.AggregateSources@vermont.gov)

VTrans Central Laboratory  
2178 Airport Road, Unit B  
Berlin, VT 05641  
802-279-5488

VTrans Northeast Aggregate Laboratory  
1098 US Route 5  
St. Johnsbury, VT 05863  
802-595-6184

VTrans Northwest Aggregate Laboratory  
5 Barnes Avenue  
Colchester, VT 05439  
802-917-8291

VTrans Southern Aggregate Laboratory  
84 US Route 4  
Mendon, VT 05701  
802-498-3888

### **Approval Process:**

Test results are evaluated by VTrans for conformance with the applicable sections of the current edition of the Standard Specifications for Construction. If test results are conforming, then the source is approved, and an expiration date established. Risk levels and expiration dates are established based on an analysis of historical data and associated data trends for each source over time and by material type. Expiration dates may range from one to three years and vary by material type for a source.

The source is added to the AASL for the material specifications for which it was evaluated within the timeframes specified below in Table A2. A notice will be sent to the contact email address on the request form notifying them of approval.

**Responsibilities:**

VTrans shall be responsible for implementing, maintaining, and updating the AASL as well as responding to customer questions/inquiries. The Producer shall be responsible for ensuring that all pertinent information needed to be considered for aggregate source approval shall be provided to VTrans. Producers that wish to stay current on the AASL shall be responsible for knowing their source(s) expiration date and following these guidelines for renewal.

### APPENDIX A

**Table A1 – Applicable Tests and Frequency’s for Approval**

Test Method	Unbound Aggregate		Bituminous Concrete Aggregate		Structural Concrete Aggregate	
	New	Renewal	New	Renewal	New	Renewal
<b>Approval Method: Providing Samples or Test Results</b>						
LA Wear AASHTO T-96	X	X	X	X	X	X
Fractured Faces ASTM D 5821	X	X	X	X	X	X
Flat & Elongated ASTM D 4791	X	X	X	X	X	X
Specific Gravities AASHTO T-84 & T-85 <sup>1</sup>			X	X	X	X
Micro-Deval AASHTO T-327 <sup>1</sup>			X	X		
Organic Impurities AASHTO T-21 <sup>2</sup>					X	X
<b>Approval Method: Test Results Only</b>						
Alkali Silica Reactivity AASHTO T-303					X	
Soundness AASHTO T-104 (Sodium Sulfate)	X		X		X	
Petrographic Analysis ASTM C 295 <sup>1</sup>			X	X <sup>3</sup>	X	X <sup>3</sup>

Notes:

1. For information purposes only, no material requirements for approval
2. Only applies to 704.01 Fine Aggregate for Structural Concrete
3. Upon VTrans request. May be required due to change in rock type of aggregates.

**Table A2 - Approval Timeframes**

	Unbound Aggregate	Bituminous Concrete	Structural Concrete
Submitted Test Result Review	10 days	10 days	10 days
Agency Testing	30 days	30 days	30 days

Notes:

1. Days are defined as workdays (Monday – Friday)
2. Timeframe begins when all samples/test results are received.
3. Timeframes may be longer for new sources.

**APPENDIX B****Table B1 - Sample Size Requirements**

<b>Size of Aggregate Field Sample (AASHTO R90)</b>	
Nominal Maximum Size of Aggregate in. (mm)	Approximate Minimum Mass of Field Sample lb (kg)
#4 (4.75 mm) or <	25 lbs. (10 kg)
3/8 in. (9.5 mm)	25 lbs. (10 kg)
1/2 in. (12.5 mm)	35 lbs. (15 kg)
3/4 in. (19.0 mm)	55 lbs. (25 kg)
1 in. (25.0 mm)	110 lbs. (50 kg)
1 1/2 in. (37.50 mm)	165 lbs. (75 kg)
2 in. (50 mm) or >	220 lbs. (100 kg)