

# Contractor's Guide

for

Materials' Submittal for Approval

with

Washington State Department of Transportation  
(WSDOT)

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## Section 1

### Material's Approval

Prior to use, the Contractor must notify the Engineer of all proposed material to be permanently incorporated into the project in accordance with *Standard Specifications* Section 1-06.1, This may be accomplished by submitting a product listed in the Qualified Product List (QPL), by submitting an approved aggregate source from the Aggregate Source Approval (ASA) Database or by submitting a Request for Approval of Material (RAM) (DOT Form 350-071 EF).

The *Construction Manual* is a tool that the Project office uses for materials approval and acceptance. It is consistent with the language and intent of the *Standard Specifications*. In order to use this reference effectively, it is essential that the user has a thorough understanding of the contract, contract plans, contract provisions, and the *Standard Specifications*, as well as this manual. Section 9-4 contains specific approval and acceptance information for most materials. It lists what is needed for temporary materials, and what materials can be accepted by pre-approved lots. The Construction Manual can be accessed on line at <http://www.wsdot.wa.gov/publications/manuals/fulltext/M41-01/Chapter9.pdf>

Material's approval may be by testing or specific evaluation of the product against the specifications as stated in the Standard Specifications or Contract documents. This must be performed before the materials are incorporated into the project and should be done prior to the material's arriving on the jobsite.

All equipment, materials and articles incorporated into the permanent Work:

1. Shall be new, unless the Special Provisions or *Standard Specifications* permit otherwise;
2. Shall meet the requirements of the Contract and be approved by the Engineer;
3. May be inspected or tested at any time during their preparation and use; and
4. Shall not be used in the Work if they become unfit after being previously approved.

The RAM process initiates the evaluation of the manufacturer and/or fabricator of the product and if they are capable of meeting WSDOT Specifications and Contract requirements.

Temporary items are materials that will not be incorporated into the work and left in place after the job is completed. Some temporary items, if required by the Contract, the Construction Manual, or items listed on the Record of Materials (ROM) need to be "Approved" prior to use.

Proprietary items are where the Contract Documents state "shall be..." and list products by specific name and model, the Contractor needs only to complete the RAM indicating to the engineer the intended choice. Occasionally, proprietary materials will have additional acceptance criteria and these criteria will be noted on the RAM.

*When materials are approved, it does not necessarily constitute acceptance of those materials for incorporation into the work. All additional acceptance actions, as noted by the numerical code on the RAM or the QPL requirements must be completed prior to the materials being used in the work.*

## **Section 2**

### **Record of Materials (ROM)**

A Record of Materials (ROM) is a listing of all major construction items that will be used on the project. For these major construction items, the ROM identifies the kinds and quantities for all materials deemed to require quality assurance testing. It further identifies the minimum number of acceptance and verification samples that would be required for acceptance of those materials. Also listed are those materials requiring other actions, such as Fabrication Inspection, Manufacturer's Certificate of Compliance, Miscellaneous Certificates of Compliance, Shop Drawings, Catalog Cuts and Field Acceptance. The Project Engineer Office will share the Record of Materials with the Contractor to assist in meeting the Contract requirements.

### Section 3

#### Qualified Product List (QPL) – Standard Specifications 1-06.1(1)

Products listed in the QPL have been found capable of meeting the requirements of WSDOT Standards such as *Standard Specifications*, General Special Provision, Bridge Special Provision, and *Standard Plans* under which they are listed and, therefore, have been “Approved”. The QPL lists materials by specific reference to WSDOT Standards, and are only approved for standards they are listed under. Make sure product on the QPL is listed under the appropriate WSDOT Standards for the bid item. Some products may be listed under several standards. Verify the QPL submittal is for the correct WSDOT Standard and it is for the intended use under the contract. These products shall be “Accepted” by fulfilling the requirements of the Acceptance Code on the QPL page and any notes that apply to the product.

The QPL identifies the approved products, the applicable Specification Section, and the basis for acceptance at the project level. Types of Acceptance methods are Sampling and Testing, WSDOT Fabrications Inspection (the highest level of acceptance method showing conformance to the requirements), Manufacturer’s Certificate of Compliance (*Standard Specifications* Section 1-06.3), Miscellaneous Certificates of Compliance, Shop Drawings, Catalog Cuts, or Visual Acceptance. Any additional acceptance actions need to be completed prior to the material being incorporated into the Work.

If the Contractor elects to use a product listed in the online QPL, the submittal shall be prepared in accordance with the instructions in the QPL program, and submitted to the Engineer for approval. When the Contractor submits the QPL page to the Engineer it should also include the bid item number.

During the life of the contract, acceptance methods for materials in the QPL may change, becoming more stringent or less stringent. The acceptance method detailed on the originally submitted QPL page will continue to be the acceptance method for the life of the contract, unless the Contractor submits a new QPL page for the material. This is the case regardless of whether the acceptance method becomes more stringent or less stringent.

Certain materials are approved on yearly basis. Section 9-4 of the Construction Manual identifies what material with referenced lots can be utilized. When a Pre-Approved Lot is required, a reference to it may be used if allowed for that specific material. That reference shall consist of a printed copy of the current electronic QPL database page showing “**referenced**” lots previously tested during the **current calendar year**. The lot number in the QPL must match the lot number of the material used.

The information will be listed in the “description” field for specific materials in the QPL. The QPL page used as the reference a pre-approved lot shall be within the same calendar year that the material is used on the project. The QPL page must reflect the same specification as the material to be used and be received prior to installation of the intended material. *The use of a test report from another contract is no longer acceptable as a*

*Reference to a Pre-Approved Lot.* All approved lots are *purged* from the QPL on December 31<sup>st</sup> of each year.

If there is a conflict between the QPL and the Contract, the provisions of the Contract shall take precedence over the QPL.

Contractor is **encouraged** to use the QPL database for submittals. The QPL database is constantly updated with additions and/or deletions and can be accessed at [www.wsdot.wa.gov/biz/mats/qpl/qpl.cfm](http://www.wsdot.wa.gov/biz/mats/qpl/qpl.cfm).

## Section 4

### **Aggregate Source Approval (ASA) Database – Standard Specifications 1-06.1(3)**

The ASA is a database containing the results of WSDOT source approval testing of aggregate for a particular aggregate source. This database is used to indicate the approval status of these aggregate sources for applications that require source approval testing as defined in the Contract. The ASA 'Aggregate Source Approval Report' identifies the currently approved applications for each aggregate source listed. The acceptance and use of these aggregates is contingent upon job site sampling and testing.

Aggregate materials that are not approved for use in the ASA database may be sampled and tested by the Agency, for a specified use on a particular project, from the source or from a processed stockpile of the material.

The current ASA Database can be accessed online at [www.wsdot.wa.gov/biz/mats/asa/](http://www.wsdot.wa.gov/biz/mats/asa/)



## Section 5

### **Request for Approval of Material (RAM) – Standard Specifications 1-06.1(2)**

RAMs is a way of requesting approval. The RAM shall be used when the Contractor elects not to use the QPL or the material is not listed in the QPL. The RAM shall be prepared by the Contractor in accordance with the instructions on the RAM form [DOT Form 350-071 EF](#) and submitted to the Engineer for approval before the material is incorporated into the Work.

As part of the approval of some materials, in addition to the RAM form, supporting documentation or samples maybe required. Additional information can be found in WSDOT Construction Manual, Section 9-4.

The time needed to evaluate RAMs is not the same for all materials. Some materials may be evaluated in a day or two i.e. fencing materials, while others may take up to several weeks i.e. railroad materials, electrical systems, hydraulic items... where the involvement of the WSDOT Subject Matter Expert (SME) is a necessity. In order to *expedite* the approval/acceptance process, the Contractor is encouraged to choose material(s) from the QPL.

When requesting approval of an item that requires fabrication, **both the fabricator and the manufacturer of the base material** shall be identified on the RAM.

When revising or adding any information to an original submittal, a new RAM needs to be submitted.

The RAM form can be accessed at [www.wsdot.wa.gov/Business/MaterialsLab/RAM.htm](http://www.wsdot.wa.gov/Business/MaterialsLab/RAM.htm)

**Processing the RAM**

Check the RAM for completeness. The following information has *to be fully completed* by the Contractor for the RAM to be evaluated. There should be information in sections **A-L** (see the following examples)



**Request for Approval of Material**

Contract Number <b>A</b>	FA Number <b>B</b>	SR <b>C</b>	Date <b>D</b>
Section / Title of Project <b>E</b>		County <b>F</b>	
Contractor <b>G</b>		Subcontractor <b>H</b>	

- A.** Contract Number
- B.** Federal Aid Number
- C.** SR (Sign Route) Number
- D.** Date
- E.** Section, this is the TITLE of the project
- F.** County name
- G.** Prime Contractor's name
- H.** Subcontractor's name

This form shall be completed prior to submittal. If this form is not complete at time of submittal it may be returned for information that was omitted.  
**For assistance in completing, see Instructions and Example**

				For WSDOT Use Only	
				RAM #	
Bid Item No.	Material or Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference	PE/OPL Code	Hdqtr./OPL Code
<b>I</b>	<b>J</b>	<b>K</b>	<b>L</b>		
Project Engineer		Date	State Materials Engineer		Date

- I.** Bid Item Number, sub item is also helpful if available.
- J.** Material or Product, this would be the trade name of the product or the name it is most easily recognized by (**specific name**).
- K.** Name and Location of Fabricator, Manufacturer or Pit Number, this should be the actual manufacturer, **not the supplier or the distributor**.
- L.** Specification Reference, this information is required when comparing material to specifications. You may also list Plan Sheet number or Special Provision page in this area. When Standard Specifications is referenced, the reference should be accurate to the section and not to the division i.e. Long-Term Mulch, the Specification Reference should be 9-14.4(2)A and **NOT** 9-14.4.

**Acceptance Action Codes for use by Project Engineer and State Materials Laboratory**

- 1. Acceptance Criteria: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
- 2. Acceptance Criteria: Mfg. Cert. of Compliance for 'Acceptance' prior to use of material.
- 3. Acceptance Criteria: Catalog Cuts for 'Acceptance' prior to use of material. Catalog Cut Approved  Yes  No
- 4. Acceptance Criteria: Submit Shop Drawings for 'Approval' prior to fabrication of material.
- 5. Acceptance Criteria: Only 'Approved for Shipment', 'WSDOT Inspected' or 'Fabrication Approved Decal' material shall be used.
- 6. Acceptance Criteria: Submit Certificate of Materials Origin to Project Engineer Office.
- 7. Acceptance Criteria: Request Transmitted to State Materials Laboratory for Approval Action.
- 8. Source Approved:

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9. Approval Withheld: Submit samples for preliminary evaluation.

10. Approval Withheld:

11. Miscellaneous Acceptance Criteria.

Remarks:

**Project Engineer Distribution**

- Contractor
- Region Operations Engineer
- Fabrication Inspection
- Region Materials
- State Materials Lab  
M/S 47365

**State Materials Engineer Distribution**

- General File
- Other \_\_\_\_\_
- Signing Inspection

DOT Form 350-071 EF  
Revised 12/2012

**Approval/Acceptance Codes**

All RAMs need to be evaluated and coded with one of the codes listed at the bottom of the RAM form by WSDOT. The appropriate code will be entered in the Hdqtr/QPL Code column.

- Code 1** is for material that is approved and requires testing for acceptance.
- Code 2** is for material that is approved and requires Manufacturer's Certificates of Compliance for acceptance.
- Code 3** is for material that is approved and requires Catalog Cuts for acceptance.
- Code 4** is for material that requires approved shop drawings.
- Code 5** is for acceptance of fabricated items. Only 'Approved for Shipment' or 'WSDOT Inspected' material shall be used.
- Code 6** is to submit for acceptance a "Materials' Certificate of Origin to Project Engineer" for iron or steel items when Federal Funding is involved with the contract.
- Code 7** is for items that are not coded in the field office.
- Code 8** is for items that are approved to be used and may be proprietary. Those materials require only a visual inspection and verification.
- Code 9** is for withholding approval and samples for preliminary evaluation is required.
- Code 10** is for withholding approval or special circumstances.
- Code 11** is for conditionally accepted materials.

## Material's Acceptance

*When materials are approved, it does not necessarily constitute acceptance of the materials for incorporation into the work. All additional acceptance actions, as noted by the code on the RAM or QPL must be completed.*

## Sampling and Testing

Material submitted on a RAM that is approved and the acceptance code is 1 or any material submitted on a QPL with an acceptance code beginning with 10XX requires testing by a WSDOT **qualified tester** at the proper frequency.

## Manufacturer's Certificate of Compliance (MCC) – Standard Specifications 1-06.3

Section 1-06.3 of the Standard Specifications covers the requirements for a manufacturer's certificate of compliance.

*The Manufacturer's Certificate of Compliance **must** identify:*

- *the manufacturer*
- *the type and quantity of material being certified*
- *the applicable Specifications being affirmed*
- *the signature of a responsible corporate official of the manufacturer*
- *include supporting mill tests or documents*

*A Manufacturer's Certificate of Compliance shall be furnished with each lot of material delivered to the Work and the lot so certified shall be clearly identified in the certificate.*

All materials used on the basis of a Manufacturer's Certificate of Compliance may be sampled and tested at any time. Any material not conforming to the requirements will be subject to rejection whether in place or not. The Contracting Agency reserves the right to refuse to accept materials on the basis of a Manufacturer's Certificate of Compliance.

## Certificate of Materials Origin (CMO)

If your project has the Buy America Special Provision, then CMO's will be required for steel materials. Refer to the Special Provisions in your contract titled, "Foreign Made Materials" for the specific requirements.

## Materials Acceptance for Electrical Bid Items

All RAMs and Catalog Cuts for electrical items shall be submitted to the PEO. After receiving the RAMs, the SME will review your submittals for compliance with your contract

and will approve or reject materials on a per contract basis, making recommendations on proper acceptance method for each item.

### **Change Orders/Force Account**

Change Orders/Force Account requires the same material approval & acceptance as any other bid item. Work involving material permanently incorporated into the job must follow the same approval and acceptance procedures as required by the Standard Specifications. A Change Order written to overrun an existing item requires additional testing or certification to account for the additional material. In these cases no new bid item number is generated, the documentation requirements outlined in your ROM still apply.

Change Orders adding entirely new materials should either follow Standard Specifications or be written to add the new material being incorporated. When a Change Order specifies the manufacturer, make and model of material to be used, it is treated exactly like all proprietary items. Contractors must submit a RAM, which should be coded using the same process as previously outlined in RAM Processing section of this manual.

### **Follow Up**

Follow through is important for all material submittals. If a catalog cut, shop drawing, MCC, or any other item is required, be sure to provide those items. When test reports are required, be sure to track what you sent. If you don't have results within a reasonable amount of time, follow up with the PEO. You will need these items for the appropriate approvals to complete the documentation package.

## Section 6

**RAM Submittal Checklist** – this checklist is not required but a helpful tool for insuring that the RAM is submitted with all the required information.

- A. **Contract Number:** Is the Contract Number indicated?
- B. **FA Number:** Is there Federal Funding? If yes, is the FA Number Indicated?
- C. **SR:** Is the Sign Route Number indicated?
- D. **Date:** Is the Date this form was filled out indicated?
- E. **Section/Title of Project:** Is the Title of the Contract indicated?
- F. **County:** Is the County Name the Contract located in identified?
- G. **Contractor:** Is the Prime Contractor identified?
- H. **Subcontractor:** Is the Subcontractor identified? If there is no Subcontractor then indicate NA.
- I. **Bid Item No:** Is the Bid Item/Sub Item Number identified?
- J. **Material or Product/Type:** Is the true trade name identified?
- K. **Name and Location of Fabricator, Manufacturer or Pit Number:** Is the name of the actual Manufacturer or Fabricator (not the Supplier or Distributor) identified? If the material is aggregate, is the Pit Number/ASA Number identified?
- L. **Specification Reference:** Is the specific Specification Reference of the materials identified and accurate? Does it reference either a specific section to the Standards Specifications, a specific page of the Special Provisions and/or Plan Sheets?

If the above information is not complete then the RAM will not be processed and will be sent back to the Contractor for required information.

## Section 7

### Examples





Instructions For Use

Prior to use of this form, read Section 1-06 of the Standard Specifications. Allow sufficient lead time to process requests; incomplete or improperly filled out forms may be returned to the contractor.

Materials submitted under the same Bid Item No. should be listed on the same or successive forms; additionally, several Bid Item Nos. may be listed for one material. For material to be used under a Lump Sum Item, reference shall be made to appropriate Special Provision page number, Plan Sheet number, or other note identifying specifically where this material is to be used.

Fabricated items should identify the name and location of the fabricator. The base materials shall be identified separately with their associated manufacturers.

Ready-mix concrete shall include the name and location of the batch plant, source of cement (type, manufacturer, and location of cement plant), concrete admixtures (product name and type), and source of all aggregates (State ID No. or legal description).

Example:



**Washington State  
Department of Transportation**

**Request for Approval of Material**

Contract 005385	FA Number BR-BH-009(43)	SR 5	Date 03/20/1996
Section Thurston County Line to MP 98		County Thurston	
Contractor Ready and Able Contractors, Inc.		Subcontractor Marco Bros.	

<i>For assistance in completing, see Instructions and Example</i> This form shall be completed prior to submittal. If this form is not complete at time of submittal it may be returned for information that was omitted.				For WSDOT Use Only RAM #	
Bid Item No.	Material or Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference	PE/QPL Code	Hdqtr./QPL Code
36.02& 38.02	Epoxy Coated Rebar	Rebar Benders, Inc. Wenatchee, WA	9-07		
	Reinforced Steel	Duro Steel Kingston, TX	9-07.2		
	Epoxy Coating - E-POX-E	3 M Richland Steel Works Richland, VA	9-07.3		
27.03	Resin Bonded Anchors Evertight Epoxy	Uptight, Inc. Dallas, TX	Specials Pg. 48		
	Threaded Rod, Washer & Nut	All City Bolt Corp. Portland, OR	Plan Sht. 52		
23.06	Sign Posts - 6 X 8 Posts (Doug Fir)	Black River Sawmill Wood Treaters, Inc. Puyallup, WA	9-09 9-09.3		
13.08	Min. Agg for ACP CL B	PS-A-205 U.S. Oil Seattle, WA	9-03.8 9-02.4		
13.09	AR4000W				
Project Engineer		Date	State Materials Engineer		Date

# Incomplete RAM



**Washington State  
Department of Transportation**

## Request for Approval of Material

Contract Number <b>09C520</b>	FA Number	SR <b>2</b>	Date Month/Day/Year
Section / Title of Project <b>MP 80.3 to MP 82.5</b>		County <b>Lewis</b>	
Contractor <b>Johnson, LLC</b>		Subcontractor <b>Quality Work Inc.</b>	

This form shall be completed prior to submittal. If this form is not complete at time of submittal it may be returned for information that was omitted.  
**For assistance in completing, see Instructions and Example**

For WSDOT Use Only	
RAM # <b>8</b>	
Bid Item No.	Material or Product/Type
<b>87</b>	<b>Piling</b>

Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference	PE/QPL Code	Hdqtr./QPL Code
<b>Best Steel Supplier</b>	<b>9-10</b>	<b>7</b>	<b>10</b>

Project Engineer <b>First &amp; Last Name</b>	Date Month/Day/Year	State Materials Engineer <b>First &amp; Last Name</b>	Date Month/Day/Year
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**Acceptance Action Codes for use by Project Engineer and State Materials Laboratory**

- 1. Acceptance Criteria: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
  - 2. Acceptance Criteria: Mfg. Cert. of Compliance for 'Acceptance' prior to use of material.
  - 3. Acceptance Criteria: Catalog Cuts for 'Acceptance' prior to use of material. Catalog Cut Approved  Yes  No
  - 4. Acceptance Criteria: Submit Shop Drawings for 'Approval' prior to fabrication of material.
  - 5. Acceptance Criteria: Only 'Approved for Shipment', 'WSDOT Inspected' or 'Fabrication Approved Decal' material shall be used.
  - 6. Acceptance Criteria: Submit Certificate of Materials Origin to Project Engineer Office.
  - 7. Acceptance Criteria: Request Transmitted to State Materials Laboratory for Approval Action.
  - 8. Source Approved:
  - 9. Approval Withheld: Submit samples for preliminary evaluation.
  - 10. Approval Withheld: Material and Spec Reference to be more specific. Best Steel Supplier is not the Fabricator.
  - 11. Miscellaneous Acceptance Criteria: Please resubmit with the Fabricator, coating facility and treatment facility (depends on the type of piling used - steel or wood).
- Remarks: RAM to be signed and dated.

**Project Engineer Distribution**

- Contractor
- Region Operations Engineer
- Fabrication Inspection
- Region Materials
- State Materials Lab  
M/S 47365

**State Materials Engineer Distribution**

- General File
- Other \_\_\_\_\_
- Signing Inspection

DOT Form 350-071 EF  
Revised 12/2012

**All in Blue should be completed by the Contractor or the Subcontractor**

**All in Blue should be completed by the Project Engineer Office**

**All in Red will be completed by Headquarters Materials Laboratory, Tumwater, WA**



# Complete RAM

## Request for Approval of Material

Contract Number <b>001234</b>	FA Number <b>ABCD-1234</b>	SR <b>2</b>	Date Month/Day/Year
Section / Title of Project <b>I-5 Bridge Retrofit</b>		County <b>Thurston</b>	
Contractor <b>Johnson, LLC</b>		Subcontractor <b>Quality Work Inc.</b>	

This form shall be completed prior to submittal. If this form is not complete at time of submittal it may be returned for information that was omitted.  
**For assistance in completing, see Instructions and Example**

For WSDOT Use Only	
RAM # 8	
PE/QPL Code	Hdqtr./QPL Code
7	5,6
QPL	3333

Bid Item No.	Material or Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference
87.03	Coated Steel Piling	ABC, Inc. Tumwater, WA - Fabricator	9-10.5
		Best Steel - Supplier	SP 126 PS 32
87.04	ABC Timber Piling	Northwest Treatment, Lacey, WA	9-10.1

Project Engineer <b>First &amp; Last Name</b>	Date Month/Day/Year	State Materials Engineer <b>First &amp; Last Name</b>	Date Month/Day/Year
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**Acceptance Action Codes for use by Project Engineer and State Materials Laboratory**

1. Acceptance Criteria: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
2. Acceptance Criteria: Mfg. Cert. of Compliance for 'Acceptance' prior to use of material.
3. Acceptance Criteria: Catalog Cuts for 'Acceptance' prior to use of material. Catalog Cut Approved  Yes  No
4. Acceptance Criteria: Submit Shop Drawings for 'Approval' prior to fabrication of material.
5. Acceptance Criteria: Only 'Approved for Shipment', 'WSDOT Inspected' or 'Fabrication Approved Decal' material shall be used.
6. Acceptance Criteria: Submit Certificate of Materials Origin to Project Engineer Office.
7. Acceptance Criteria: Request Transmitted to State Materials Laboratory for Approval Action.
8. Source Approved: \_\_\_\_\_
9. Approval Withheld: Submit samples for preliminary evaluation.
10. Approval Withheld: \_\_\_\_\_
11. Miscellaneous Acceptance Criteria.

Remarks:

**Project Engineer Distribution**

- Contractor                       Region Materials  
 Region Operations Engineer    State Materials Lab  
 Fabrication Inspection              M/S 47365

**State Materials Engineer Distribution**

- General File                       Signing Inspection  
 Other \_\_\_\_\_

All in Green should be completed by the Contractor or the Subcontractor

All in Blue should be completed by the the Project Engineer Office

All in Red will be completed by Headquarters Materials Laboratory, Tumwater, WA

## **Section 8**

### **Conclusion**

Properly filing out the RAM with the correct product/contract information and requirements expedites the review process thus saving time and money.