

CHAPTER 5

QUALITY PRICE ADJUSTMENTS

The Construction Manual Section 12-C discusses price adjustments, shows how to fill out the Statspec program and the smoothness adjustment spreadsheet, and explains the differences between standard and non-standard price adjustments. An overview follows:

ODOT contracts require the Contractor to furnish materials and perform the required work in a manner that closely conforms to contract requirements. As stated in Section 150.25 of the Standard Specifications. If the materials furnished, or the work performed, are not in close conformance the PM may order the materials or work to be removed and replaced, or may allow the materials or work to remain in place at a reduction in payment. To determine if materials are suitable for the intended purpose and may remain in place, contact the Engineer of record, and other resources.

Some contracts also allow the Contractor to receive a premium price adjustment (bonus) for work or materials that meet the requirements for such an adjustment. Examples of this type of adjustment would be:

Statspec (HMAC, also used to pay for asphalt cement)
Smoothness (HMAC/PCC bonus for workmanship)

Construction materials and work all fall into one of the following four categories:

1. Materials and/or work that are in close conformance with the contract requirements and are paid at full price.
2. Specified materials and/or work that is in close conformance with, or exceeds the contract requirements and will be paid at the full price plus a premium price adjustment (bonus).
3. Materials and/or work that is **not** in close conformance with the requirements, but are considered suitable for the intended purpose, may be approved for use with an appropriate adjustment (reduction) in price; or
4. Materials and/or work that is **not** in close conformance with the contract requirements, and are **not** considered suitable for the intended purpose, shall be rejected and not be incorporated into the finished work unless the defects are corrected in a manner acceptable to the PM.

Standard Adjustments

Standard adjustments are those for which there is a consistent process for applying either a bonus payment for superior materials and workmanship, or a reduction in payment for inferior materials or workmanship. Again, Section 12-C in the Construction Manual has many examples of standard price adjustments.

The most common negative price adjustments are for failing concrete (Concal spreadsheet), failing asphalt cement (Summary of Failing Test Results for Asphalt Cements), and failing aggregates (Summary of Failing Test Results for Aggregate). These forms are located in the Construction Manual, in Form Flow, or in the case of Concal – the spreadsheet is available at: <http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/> or <http://intranet.odot.state.or.us/tsconstruction/> or <http://www.oregon.gov/ODOT/HWY/CONSTRUCTION/Resource.shtml>

Filling out these forms is pretty self-explanatory.

If you have questions, your RAS will provide any help needed. Be sure that your PM approves and signs off on the adjustment. Because these adjustments are standard routine, they do not require prior approval of Contract Administration to implement.

The data entry on the spreadsheets for Statspec bonus and Smoothness Bonus needs to be checked. This can be a time consuming task for large projects. Have the checker also sign and date the form when this task is completed.

Non-Standard Adjustments

Non-Standard adjustments are by definition any adjustment that does not have a standard method for calculating a price reduction. Once the material is found suitable, then an analysis of the reduction in useful life of the product should be performed. This is done by considering one or more of the following:

- Based on the expected life of the specified material, how much value is being lost because of the shorter expected useful life of the supplied material?
- How much additional maintenance will be needed for repairs due to the lesser quality of the supplied material?
- Any other impacts that may occur due to the lesser quality of the supplied material.

Assistance should be obtained from the Region, District Manager, RAS, or Contract Administration in determining these impacts.

A common method for figuring a non-standard adjustment is to calculate the percent out-of-spec the material is, and reduce the price accordingly. An example:

Galvanized pipe requires 1.8 oz galvanizing. The pipe tested at 1.5 oz galvanizing. The pipe cost \$11.42/meter and 112 meters were used.

$$\frac{1.8 - 1.5}{1.8} = 0.17 \quad 0.17 \times \$11.42 = \$1.90 \quad \$1.90 \times 112 = (\$213.17)$$

A negative adjustment of \$213.17 would be applied.

All non-standard adjustments **require** the review of your RAS and the Contract Administration Engineer **before** applying them to the contract.

Other examples of non-standard adjustments follow this section.

Once the adjustment has been calculated, have the PM review and approve it. For non-standard adjustments, take the additional step of getting a review from your RAS. The RAS will contact the Contract Administration office in Salem for their approval. Give the Contractor written notice of the adjustment after receiving the concurrence of the Contract Services Group.

Your work-up of the adjustment is the “paynote”, so turn in the adjustment with copies of the failing tests, and other supporting documents (i.e. invoices), to your Contract Payment Specialist and it will be entered in to the next estimate and filed in the adjustment book for that contract.

See Exhibit D for Examples of some Non-Standard adjustments.

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EXHIBIT D

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Grant County Line- Jct. US 20
John Day Burns - Highway
Harney County
Cont. #12219

Price reduction adjustment calculations for failing zinc coating on wire cable used to in the construction of slope protection mat, Bid Item # 420.

Diameter	Zinc Coating	Specification	% below Spec
0.0175	0.036 oz/ft.	0.10 oz/ft.	63.0 %
0.0300	0.217 oz/ft.	0.20 oz/ft.	0.0 %
0.0350	0.081 oz/ft.	0.20 oz/ft.	59.0 %

$$63.0 + 0.0 + 59.0 = 122.0/3 = 41 \%$$

Used about 5500 Lin. Ft. @ 0.57 / ft. times 0.41% = -\$1285.36

Attached
Lab Report
Cable invoice

RECEIVED MAR 1 2003

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FILE 00

ADJUSTMENT FOR FAILING 25 mm - 0 SHOULDER AGGREGATE
February 11, 2000

FAIRVIEW WAY - LOUNSBERRY CR.
HEPPNER HIGHWAY
UMATILLA COUNTY
CONTRACT 12227

The 'sediment height' portion of the Degradation test, #208, exceeded the maximum allowed (75 mm) by 28%. The P20 segment of TM 208 result was 19.6% (30% allowable), or 65.3% under maximum.

The Abrasion test, TM 211, result for this material was 17.7% (35% allowable), or 50.6% under maximum.

In discussion with Bruce Patterson, of the ODOT lab, it was suggested that all three of these elements be considered in determining the actual quality of Shoulder Aggregate.

Lacking an ODOT standard procedure in determining an adjustment to payment for Shoulder Aggregate due to excess sediment height, we have calculated adjustments as follows:

Assuming that each of the three test results above are equivalent indicators of quality for the material (33.3% each);

- | | | |
|----------------------------|------------------------------|-------------------|
| 1. Coarse Sediment Height: | 28% over allowable x 33.3% = | 9.3% out of spec. |
| 2. P20; | 65.3% under allowable = | 0% out of spec. |
| 3. Abrasion; | 50.6% under allowable = | 0% out of spec. |

Assess 9.3% out of specification adjustment to Shoulder Aggregate item as follows:

Lab Rpt. 99-001848 6,670.34 Mg. x \$9.00 / Mg. x -9.3% = (\$5,583.07)
(bid item material incorporated in project)

480.35 Mg. x \$3.50 / Mg. x -9.3% = (\$ 156.35)
(stockpiled Shld. Agg. transferred & used by ODOT Maintenance)

ADJUSTMENT DUE TO NON-SPECIFICATION QUALITY TEST RESULT: (\$5,739.42) ←

NOTED
Tony George

Prepared by: *[Signature]*
Dist. Proj. Mgr.
2/17/2000

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Adjustment # 6002

Adjustment for failing Sodium Sulfate Soundness Tests
July 15th, 2003

Jct. Hwy 8 – Lower Basket Mountain Road
Weston – Elgin Highway – Umatilla County
C12778 – CON01520 – X-MGS-S330(5)

There were two quality compliance tests taken on the 4.75 mm – 0 HMAC aggregate. Both of these compliance tests failed the sodium sulfate soundness testing. There were laboratory numbers 03-001280 @ 13% and 03—001302 @ 15%; each test represented 5,000 Mg.

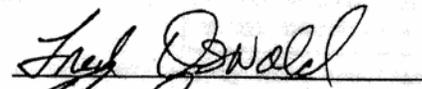
This problem has been discussed with the Salem Pavement Services & Quality Assurance Units. It was decided that this material could be used but would need to be adjusted for being out of specification. An adjustment of 10% of the production cost for the material being out of specification has been used on another project with a similar failing sodium sulfate soundness testing. Production costs for the 4.75 mm – 0 aggregate is based on a material on hand (MOH) request from the supplier.

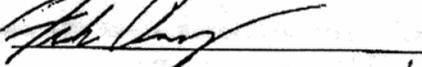
Production Costs		Adjustment Percentage		Total Adjustment
\$5.20	X	-0.10	=	-\$0.52 Mg.
Mix Design 4.75 mm – 0		Quantity Paid To Date (Plus CCO)		19,301.03 Mg. + 1,263.96 Mg. = 20,564.99 Mg
47%	X	20,564.99 Mg	=	9,665.55 Mg
9,665.55 Mg.	X	-\$0.52	=	-\$5,026.08

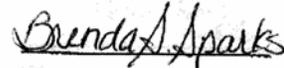
Calculated by Fred Oswald, QCCS 07/15/03

Concurrence by Frank Reading, Project Manager

Concurrence by Brenda Sparks, Documentation Compliance Specialist







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CONSTRUCTION MATERIAL TESTING SERVICES

Average costs based on testing services from each region. 2000

Test	Designation	Cost per test or hr
*Sieve Analysis	AASHTO T27	\$70.00 ea.
	AASHTO T27/T11	\$ 90.00 ea.
Sand Equivalent	AASHTO T176	\$ 48.00 ea. One run.
Bulk Specific Gravity	AASHTO T85/T84	\$ 53.00 ea.
Maximum Specific Gravity	AASHTO T209	\$ 63.00 ea.
Moisture Content	AASHTO T255/T265	\$ 15.00 ea.
Moisture Density Standard	AASHTO T99/T180	\$ 150.00 ea.
Moisture Density Modified	AASHTO T99/T180	\$ 154.00 ea.
Moisture Density Harvard Miniature	WAQTC TM9 Soil	\$ 130.00 ea.
Moisture Density Harvard Miniature	WAQTC TM9	\$ 188.00 ea.
Inspector & Nuclear Densometer (CDT/CEBT)	Soil -no per test charge	\$ 50.00 per hour
Inspector & Nuclear Densometer (CDT/ODOT)	Agg -no per test charge	\$ 50.00 per hour
	<u>Asphalt</u>	
Laboratory Technician	Cat 1 / Cagt	\$ 50.00 per hour
Laboratory Technician	Cat 1 / Cat 2	\$60.00 per hour
Nuclear Density Technician	CDT	\$ 50.00 per hour
Asphalt cement content by Ignition method	AASHTO TP 53	\$ 175.00 per test.
	<u>Concrete</u>	
Concrete Technician	CCT / QCT	\$ 50.00 per hour
Compressive Strength of Concrete Cylinders	AASHTO T22	\$ 14.00 ea.
<u>* miscellaneous procedures</u>		
Percent fractured particles	WAQTC TM 1	\$55.00
Wood Waste	AASHTO T225	\$40.00
Elongated Particles	AASHTO T229	\$60.00
<u>Notes:</u>		
Travel Time		\$ 50.00 per hour

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