

**STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
SUPPLEMENTAL SPECIFICATION 879
QC/QA FOR EMBANKMENT CONSTRUCTION**

April 21, 2006

- 879.01 Description**
- 879.02 Contractor Quality Control Plan**
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879.01 Description. This work consists of performing inspection, compaction testing, documentation, and quality control for Items 203 and 204.

879.02 Contractor Quality Control Plan. Submit a Quality Control Plan (QCP) to the Engineer at the preconstruction conference. Ensure the plan clearly describes the methods in which the Quality Control Program will be conducted. If required due to quality assurance inspections, site conditions or other issues, update the QCP during the life of the contract. Receive the Engineer's acceptance for all QCP changes prior to implementation. List the following information in the quality control plan:

- A. **Identifying Information.** Document the project number, route number, location, county, district, and the items to be controlled.
- B. **Personnel Requirements.** Provide personnel according to section 878.02 in Supplemental Specification 878.
- C. **Field Test Methods.** Provide methods used to identify the soil types for each test. Perform field test methods according to 878.03 and Section 1015.10 in Supplement 1015.
- D. **Test Equipment.** Provide test equipment according to 878.04.
- E. **Compaction Equipment.** Provide a list of compaction equipment according to 878.06.
- F. **Forms, Documentation, Weekly and Final Reports.** Provide this work according to 878.08.

879.03 Quality Control Plan Acceptance. The Engineer will review and either accept or reject the QCP within 15 working days of the submittal. If rejected, revise and resubmit the QCP.

The Engineer may require revisions to the QCP during construction when QA testing shows unacceptable quality.

879.04 Acceptance of Field Inspection Personnel. The Department will accept the field inspection according to 878.05.

879.05 Notification of Non-compliance. Immediately notify the Engineer and the Contractor when any field tests note non-compliance.

879.06 Quality Assurance Testing. The Department will perform quality assurance (QA) tests according to 878.09.

If the material does not require a compaction test, such as rock or hard shale, and it is being placed according to the specifications then the material will be given a passing test.

879.07 Incentive Pay Adjustment. The Department will provide a pay adjustment to the final quantities based on the total number of QA tests for compaction and the number of QA compaction tests with passing results. Re-test QA tests are not included in the calculation.

The method for calculating pay adjustments is:

Calculate the Percentage of Passing Quality Assurance Tests (PPQAT):

$$PPQAT = \left(\frac{\text{Number of Passing QA Compaction Tests}}{\text{Total Number of QA Compaction Tests}} \right) \times 100$$

Determine the appropriate Pay Factor Formula:

Applicable Range of PPQAT	Pay Factor Formula (PFF)
90 to 100%	1.00 + 0.04 [(PPQAT-90)/10.0]
70 to 90%	1.00-0.04 [(90-PPQAT)/20.0]
Below 70%	0.96

The Department will adjust the following items by the Pay Factor Formula:

- Item 203 Embankment,
- Item 203 Granular Embankment,
- Item 203 Granular Material Type_____,
- Item 204 Embankment,
- Item 204 Granular Embankment,
- Item 204 Granular Material Type_____
- Item 204 Subgrade Compaction.

The Department will not apply the PFF to any other Item 203 or 204 quantities.

879.08 Basis of Payment. Include the cost of all work necessary to meet this specification in the contract unit price for the applicable earthwork items.

Designer Note: Use this note when construction personnel are limited and the District wants full time inspection and compaction testing for the work. For estimating purposes use the maximum incentive. Contact the District Construction Engineer before incorporating this note into the plans.

SS 878 and 879 are very similar specifications. SS-878 pays for the inspection and compaction testing as a lump sum pay item and covers Items 203, 204, 205, 206, 304, 307, 411, 503, 603 and MSE wall select granular embankment. SS-879 pays for the work as an incentive pay to the contract. The Contractor would be more responsible for the work under 879 but SS-879 only covers Items 203 and 204.