

POLICY MEMORANDUM

February 10, 2022

Springfield, Illinois

Number: 22-2

TO: CONSULTING ENGINEERS / CONTRACTORS

SUBJECT: OBTAINING APPROVED AGGREGATES COMPLYING WITH 2020
STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS

I. SCOPE

This Policy Memorandum addresses the additional aggregate quality requirements of the 2020 Illinois Standard Specifications for Construction of Airports, Special Provisions, and policies of IDOT Aeronautics. The airport quality requirements exceed those normally expected for similar IDOT highways pay items.

II. REQUIREMENTS

The contractor shall use these procedures to demonstrate aggregate compliance with the contract requirements.

A. Contractor Responsibility

1.) For Item 208 Aggregate Base and Item 209 Crushed Aggregate Base, the Contractor shall use aggregates with test requirements conforming to 2020 Standard Specifications for Construction of Airports, Coarse Aggregate Quality table, Section 208-2.2 and Section 209-2.2. Note: Item 208 and 209 Airport aggregates require B Quality coarse aggregates instead of the IDOT Highways allowed D Quality.

- a) Na₂SO₄ Soundness 5 Cycle, Illinois Modified AASHTO T 104, maximum percent loss = 15%.
- b) Los Angeles Abrasion, Illinois Modified AASHTO 96, maximum percent loss = 40%.
- c) Deleterious Materials, Illinois Testing Procedure 203, Deleterious Particles in Coarse Aggregate.
 - i. Shale, 2.0% maximum.
 - ii. Clay Lumps, 0.5% maximum.

- iii. Soft & Unsound Fragments, 6.0 % maximum.
- iv. Other Deleterious, 2.0% maximum.
- v. Total Deleterious, 6.0% maximum.

2.) For Item 401 HMA Mixtures, the Contractor shall use aggregates with quality testing requirements conforming to 2020 Standard Specifications for Construction of Airports, Coarse Aggregate Quality table, Section 401-2.1a(2) and Fine Aggregate Quality table, Section 401-2.1b(2). Note: Airport HMA mixtures require A Quality coarse and fine aggregates instead of the IDOT Highways allowed B Quality.

- a) Deleterious Materials, Illinois Testing Procedure 203, Deleterious Particles in Coarse Aggregate.
 - i. Shale, 1% max.
 - ii. Clay Lumps, 0.25% max
 - iii. Coal & Lignite, 0.25% max
 - iv. Soft & Unsound Fragments, 4.0 % max
 - v. Other Deleterious, 4.0% max
 - vi. Total Deleterious, 5.0% max

3.) For Item 501 PCC Mixtures, the Contractor shall use aggregates with quality testing requirements conforming to 2020 Standard Specifications for Construction of Airports, Coarse Aggregate Quality table, Section 501-2.3(b). It is noted that this A Quality table has been modified from the current IDOT Highways A Quality requirements. Aggregate testing procedures and acceptance are as follows.

- a) Total Deleterious Maximum % = 2.6% conforming to Illinois Testing Procedure 203 Deleterious Particles in Coarse Aggregate (ITP 203).
- b) Maximum Deleterious Chert % = 0.1% conforming to Illinois Modified AASHTO T 113, Standard Method of Test for Lightweight Pieces in Aggregate.

4.) Obtaining aggregates conforming to the requirements of the 2020 Standard Specifications for Construction of Airports.

- a) First, check with your aggregate source(s) to see if their product recently passed Aeronautics requirements. It is possible the aggregate source in questions has met the Aeronautics requirements, but the IDOT Bureau of Materials does not have the Aeronautics-approved product listed. For example: the B Quality aggregate 031CM16 at a particular source has been confirmed to also meet A Quality. Check with your aggregate source to confirm aggregate quality to be used in the above pay items. Check with IDOT Aeronautics for previously approved sources.
- b) If the aggregate source does not have recent tests to show it meets Aeronautics requirements, the Contractor shall ask the aggregate source to request the IDOT District Materials Engineer to test the aggregate for the required parameters.
- c) If the IDOT District is unable to perform the requested test(s) or the IDOT District schedule is not compatible with the Contractor's timetable, the Contractor shall have the aggregate tested by a third-party testing laboratory. The third-party laboratory shall be IDOT-approved or AASHTO-approved. AASHTO approval consists of accreditation in accordance with AASHTO Materials Reference Laboratory (AMRL).

- d) Additional expense incurred by the Contractor for third-party testing may be approved for payment by a Change Authorization in the amount of the actual testing cost. Confirm with the Aeronautics Materials & Certifications Engineer to get prior approval for testing expenses.
 - e) Aeronautics will maintain a database of approved sources and third-party tested aggregates that conform to the requirements of the 2020 Specifications.
- 5) Frequency of Testing. Test results for aggregate products from the same ledge, processed using the same method and equipment, shall be considered to meet the Aeronautics requirements for 1 year from the testing date. IDOT Aeronautics reserves the right to re-test aggregates to confirm compliance.

William C. Eves, P.E.
Acting Chief Engineer