

**CITY OF FARGO SPECIFICATIONS  
AGGREGATE BASES**

**PART 1  
DESCRIPTION OF WORK**

The work to be done under this section of the Specifications and the accompanying plans consists of all labor, material, accessories, and equipment necessary to install aggregate base material for the construction of certain streets, avenues or alleys in the City of Fargo.

## **PART 2**

### **MATERIALS**

#### **2.1. AGGREGATE**

Material for aggregate base shall conform to the requirements of ND Class 5 Aggregate, and shall consist of sound, durable particles of gravel or sand, free of sod, roots, and other organic matter. The physical characteristics and quality of the materials shall be approved by the Engineer.

When the aggregate does not meet the gradation specified for all required samples, a reduction in the contract unit price will be made for such material in accordance with the acceptance requirements for Aggregate Base outlined in the current version of the NDDOT Standard Specifications for Road and Bridge Construction.

#### **2.2. ASPHALT MILLINGS USED FOR BASE**

When allowed by the Engineer, asphalt millings may be blended with ND Class 5 aggregate to produce a base material. The base material shall be made by uniformly blending asphalt millings with Class 5 aggregate. The percentage of recycled asphalt millings shall not exceed 50% of the blended base material. The maximum particle size of the base material shall be 1 inch, and the maximum percent passing the No. 200 sieve shall be 10%.

#### **2.3. CRUSHED CONCRETE USED FOR BASE**

When allowed by the Engineer, clean crushed concrete may totally replace or be uniformly blended with ND Class 5 aggregate to produce the base material. The gradation shall be as follows:

- 100% passing the 1.5" sieve.
- 35% to 85% passing the #4 sieve.
- 16% to 50% passing the #30 sieve.
- Max. 12% passing the #200 sieve.

#### **2.4. EQUIPMENT**

All equipment shall be kept in satisfactory repair at all times and shall meet the approval of the Engineer.

*2.4.1. SCALES*

When a tonnage pay item is specified, the scales used shall be of the platform type sensitive to a weight of twenty (20) pounds and shall have the capacity to weigh the maximum load. The scales shall be approved and calibrated by the state in which it is located and proof of such calibration furnished to the Engineer upon his request.

*2.4.2. OTHER EQUIPMENT*

Rollers, water hauling equipment, and material hauling equipment shall conform to Section 151 of the NDDOT Standard Specifications for Road and Bridge Construction.

**PART 3**  
**CONSTRUCTION**

**3.1. PREPARATION OF THE EXISTING SUBGRADE**

Excavation and subgrade preparation shall meet the requirements of Section #2000 of these Specifications. Any unstable areas shall be repaired prior to placing aggregate base. Geotextiles and/or Geogrids shall meet the requirements of Section #2050 of these Specifications.

**3.2. MATERIAL PLACEMENT AND COMPACTION**

Where geotextiles or geogrids are used, small dozer equipment or front-end loaders with low ground pressures shall be used to spread the material.

Water shall be applied to the base material during the mixing and spreading operations so that at the time of compaction the moisture content is not less than 5 percent of the dry weight.

All compaction equipment shall be operated to produce uniform density throughout the entire section. Base material shall be compacted simultaneously with laydown operations until, in the sole opinion of the Engineer, a tightly bound surface is achieved and there is no further evidence of consolidation, rutting, or displacement under rolling operation. The Engineer may elect to perform density tests as needed to assist inspection. The test results must indicate that the aggregate base has been compacted to not less than 98% of Standard Proctor Density in order to be acceptable.

**3.3. SURFACE TOLERANCE**

Final grade shall be within plus or minus 1/4" (0.02') of specified grade.

**PART 4**  
**GUARANTEE, MEASUREMENT & PAYMENT**

4.1. GUARANTEE

The guarantee shall be per the contract.

4.2. MEASUREMENT AND PAYMENT

Payment for aggregate base shall be full compensation for all labor, material, equipment and miscellaneous items necessary for constructing the base in place.

*4.2.1. AGGREGATE BASE*

Aggregate base shall be paid for by the contract unit price per square yard for the corresponding Gravel Base bid item. The pay area shall be the same as for subgrade preparation in Section 2000 of these Specifications. Payment shall include full compensation for all base material placed within the pay limits, including material required in medians and/or for the installation of drain tile and any other material. Any additional base material required to ensure a stable base for paving equipment shall be at the Contractor's cost.

When called for in the special provisions and/or tonnage bid items are provided on the bid sheet, the Contractor shall provide the Engineer in the field at the point of delivery with computer-generated haul tickets for each load showing the scaled weight of the material incorporated into the project. If tickets are not delivered in this manner, the material will not be eligible for payment unless the Engineer has given prior written approval for some other ticket delivery method.

*4.2.2. OTHER COSTS*

All other costs for work necessary to properly complete the work specified herein shall not be bid items; the costs shall be charged to other items unless a bid item is specifically included on the bid sheet.