SECTION 32 11 16

CRUSHED STONE BASE COURSE

PART 1 GENERAL

1.1 SCOPE

A. This Section covers the materials for crushed stone base course to be used as a base material for concrete paving.

B. This material may also be used for embedment for water and sewer utility lines.

1.2 RELATED WORK

A. Section 31 23 00: Excavation and backfill-filling and site preparation for streets and parking areas.

B. Section 32 13 13: Portland Cement Concrete paving

C. Standard Specification for Highway Construction, ARDOT, Edition 2014

1.3 QUALITY ASSURANCE

A. The moisture density relations of material shall be determined in the laboratory in accordance with AASHTO T-180.

B. Compacted base shall be tested for depth and any deficiencies corrected by scarifying, placing additional material, mixing, reshaping, and re-compacting to the specified density, as directed.

1.4 PUBLIC WORK

A. Comply with the City of Centerton, AR, standard specifications for Public Street Construction. If conflict should be found between this section and the City Standards for Public Street Construction, City Standards shall be the priority.

PART 2 PRODUCTS

2.1 MATERIALS

A. Crushed stone base course shall consist of crusher run stone or a mixture of crushed stone and natural fines uniformly mixed and so proportioned as to meet all the requirements hereinafter specified, with the further provision that a mixture of crushed stone and natural fines shall contain not less than 95 percent crusher produced material.

B. Stone shall be hard and durable with a percent of wear by the Los Angeles Test (AASHTO T96) not greater than 45.

C. Shale and slate shall not be used for crushed stone base course.

D. The material furnished shall not contain more than 5 percent by weight of shale, slate and other deleterious matter.

E. Crushed stone base course shall conform to the following grading (AASHTO T 11 and T 27) and crushing (ARDOT Specification Section 303) requirements.

Size of Sieve	Percent Passing by Weight
	Class 7
1-1/2"	100
1"	
3/4"	50-90
3/8"	
#4	25-55
#10	
#40	10-30
#200	3-12

1. The fraction passing the No. 200 sieve shall not be greater than three quarters the fraction passing the No. 40 sieve. The fraction passing the No. 40 sieve shall have a liquid limit not greater than 25 and a plasticity index not greater than 6.

2. When it is necessary to blend two or more materials, each material shall be proportioned separately by weight through mechanical feeders to insure uniform production. Pre-mixing or blending in the pit to avoid separate feeding will not be permitted.

3. The specific type of crushed stone for different applications shall be as specified or shown on Drawings.

PART 3 - EXECUTION

3.1 BASE COURSE

A. The base course material shall be placed on the completed and approved subgrade, that has been bladed to substantially conform to the grade and cross section shown on the Drawings.

B. The sub-grade shall be prepared as specified and shall be free from an excess or deficiency of moisture at the time of placing the base course.

C. The subgrade shall also comply, where applicable, with the requirements of other items that may be contained in the contract that provide for the construction, reconstruction or shaping of the subgrade or the reconstruction of the existing base course.

D. Base course material shall not be placed on a frozen subgrade.

E. The crushed stone shall be placed on the subgrade or previous base course layer in lifts not to exceed 6" and spread uniformly to such depth and lines that when compacted it will have the thickness as follows:
   1. Heavy Duty Paving Areas: 6" base course

F. The spreading shall be done the same day that the material is hauled, and shall be performed in such a manner that no segregation of coarse and fine particles nor nests or hard areas caused by dumping the crushed stone on the subgrade will exist.

G. To insure proper mixing, the crushed stone shall be bladed across the roadbed before being spread. Care must be taken to prevent mixing of subgrade or shoulder material with the base course material in the blading and spreading operation

H. The crushed stone shall be substantially maintained at optimum moisture during the mixing, spreading, and compacting operations, water being added or the material aerated as may be necessary.

I. The specified grade and section shall be maintained by blading throughout the compaction operation.

J. The material in each course shall be compacted to a density, as determined by AASHTO T 238, Method B, of not less than 95% of the maximum laboratory density determined in the laboratory by AASHTO T 180, Method D. The aggregate shall be compacted across the full width of application.

K. The crushed stone shall be compacted across the full width of application.

L. The compacted base course shall be tested for depth and any deficiencies corrected by scarifying, placing additional material, mixing, reshaping, and re-compacting to the specified density, as required by the Architect.

M. Compaction testing shall be as specified in Section 31 23 00

END OF SECTION