SECTION 604 -- CONCRETE BASE COURSE

604.01 -- Description

This work shall consist of furnishing all materials and constructing a base course composed of portland cement concrete. It shall be constructed on a prepared subgrade or foundation course as shown in the plans.

604.02 -- Material Requirements

1.   The base course concrete shall be NDR Class 47B-2,900

2.   All materials shall be furnished by the Contractor and shall conform to the requirements in Table 604.01.

Table 604.01

Material Requirements	
Applicable Materials	**Section**
Portland Cement Concrete	1002
Joint Sealing Filler	1014
Preformed Joint Filler	1015
Reinforcing Steel	1020, 1021, 1024
Deformed Metal Joint Material	1027
Curing Materials	1010, 1011, 1012, 1013
Dowel Bars	1022
Admixtures	1007
Water	1005

604.03 -- Equipment

The equipment used and the calibration responsibility shall be as prescribed in Sections 601 and 603.

604.04 -- Construction Methods

1.   The Contractor shall prepare the subgrade and foundation course as prescribed in Sections 301, 302, 303, 305, and 307.

2.   Section 603 provides the specifications for the following concrete base course requirements:

   a.   Forms.

   b.   Constructing approach slabs and headers.

   c.   Placing concrete.

d.   Finishing and texturing concrete.

e.   Curing concrete.

f.   Placing reinforcing steel and dowels.

g.   Constructing joints.

h.   Slip form construction.

i.   Constructing integral curb.

3.   The surface of the concrete base course shall be tested in both the transverse and longitudinal directions with a 10 foot straightedge, and the maximum allowable variation is 0.24 inch.

4.   a.   When a bituminous or asphaltic concrete surface is to be placed on the base course, a bituminous liquid curing compound conforming to the requirements of Section 1013 shall be applied.

b.   The rate of application shall be determined from the results of moisture retention tests, except that the rate of application shall never be less than 1 Gal/200 SF of surface area.

c.   In the event that the cure coating is damaged within 72 hours after being applied, the affected areas shall be recoated without delay at the same rate prescribed for the original application.

5.   a.   The base course may be opened for hauling and placing the wearing or surface course after the concrete has cured 14 days or after 7 days with the pavement having developed a compressive strength of 2,900 psi when tested in accordance with AASHTO T 22.

b.   The Engineer shall be given 48 hours notice before any vehicles are allowed on the pavement.

6.   The Contractor shall clean and seal all cracks and joints in the base course with approved joint sealer if the wearing or surface course is not placed during the same construction season as the base course.

604.05 -- Method of Measurement

Concrete base course is measured by the square yard.

604.06 -- Basis of Payment

1.   <u>Pay Item</u>   <u>Pay Unit</u>

_____ Concrete Base Course; _____   Square Yard (SY)

2.   Deductions for thickness and strength deficiencies will be computed as prescribed in Section 603.

3.   Welded steel wire fabric reinforcing used in the concrete base course will not be paid for directly but shall be considered subsidiary to concrete base course.

4.   Furnishing and placing the required reinforcement and dowel bars in the concrete base course will not be paid for directly but will be considered subsidiary to the concrete base course.

5.   If varying types or thicknesses of concrete are used, the pay item will be subdivided to show the quantities of each variation.

6.   a.   The 28-day compressive strength of each day's production unit will be determined from cylinder strength tests.

b.   Payment shall be reduced by the amount prescribed in Table 603.02.

c.   (1)   The Contractor has the option to take 3 core samples at no additional cost to the Department. The average compressive strength of these cores will be used to determine the actual 28-day compressive strength of each day's production.

(2)   Cores must be taken within 30 days from the date the concrete was poured.

(3)   The Engineer shall select the site where the cores will be taken.

7.   Payment is full compensation for all requirements prescribed in this Section.