LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE

For The Technical Direction Of The LTPP Program

Program Area:	**SPS Support**	**Directive Number: S-12**
Date:	**31 January 1997**	
Subject:	**SPS-1, SPS-2, and SPS-8 Data Collection Guidelines**	

Attached are revised pages for the SPS-l, SPS-2 and SPS-8 Data Collection Guidelines. The changes are primarily editorial in nature. These pages should replace the appropriate pages in each document. This directive should also be forwarded to all holders of each respective document.

Any questions regarding this directive should be submitted to the FHWA Pavement Performance Division with a copy to the LTPP Technical Assistance Contractor (TAC).

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during the year (enter 03 for March, etc.). The two digits identifying the year are the last two digits of the year (91 for 1991, etc.).

2. STATE HIGHWAY AGENCY (SHA) DISTRICT NUMBER. Enter the number used to identify the SHA district in which the pavement test section is located.

3. COUNTY OR PARISH. Enter the number used to identify the county or parish where the pavement section is located. County codes may be found in Federal Information Processing Standards Publications 6, "Counties of the States of the United States."

4. FUNCTIONAL CLASS. Enter the number used to identify the functional classification of the highway for which the pavement section is a sample (see Table A.2, Appendix A of the LTPP Data Collection Guide or Appendix A of this report for codes).

5. ROUTE SIGNING. Enter the code to identify the letter designation that precedes the number of the highway where the SHA project is located.

6. ROUTE NUMBER. Enter the number assigned to the highway where the SHA project is located (e.g., I-280).

7. TYPE OF PAVEMENT. Enter the code identifying the general type of pavement structure (such as asphalt concrete pavement with granular base). The valid pavement type codes for SPS-1 are 01 and 02 for asphalt concrete pavement with granular base and bound base, respectively.

8   NUMBER OF THROUGH LANES. Enter the number indicating the total number of through lanes (exclusive of ramps and access roads) in the djrection of travel.

9. DATE CONSTRUCTION COMPLETION. Enter the month and year in which the test section construction was completed.

2.   SUBGRADE PREPARATION COMPLETED. Enter the date on which subgrade
        preparation on the test section was completed.

        PRIMARY COMPACTION EQUIPMENT

3.   CODE TYPE. Enter the code for the primary compaction equipment used in subgrade
        preparation. The codes are provided on the data sheet.

4.   GROSS WEIGHT. Enter the gross weight (in tons) of the primary compaction equipment
        used to compact the subgrade.

5-6.   TYPE AND PERCENT STABILIZING AGENT. Enter the type code and average
        percent based on dry weight of the subgrade soil for each type of stabilizing agent used. If
        only one stabilizing agent is used, leave the spaces for "Stabilizing Agent 2" blank.
        Stabilizing agents can be added to the subgrade to provide a stable working platform as
        part of the construction process but shall not be used as an additive to increase the
        strength of the subgrade in the pavement structure.

7.   TYPICAL LIFT THICKNESS. Enter the nominal placement thickness of the subgrade
        fill material. The lift thickness is the thickness prior to compaction and should be based on
        field observations or measurements.

8   SIGNIFICANT EVENTS DURING SUBGRADE PREPARATION. Describe any
        significant events which occurred during construction and may influence the performance
        of the test section, e.g., disruptions due to equipment break downs or the weather. Use
        Construction Data Sheet 17 if more room is required.

	SPS-1 CONSTRUCTION DATA SHEET 7 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO. [__ __]

*1.   LAYER NUMBER (FROM SHEET 4)   [__]

*2.   TYPE OF SAMPLES   [__]
          SAMPLES COMPACTED IN LABORATORY 1
          SAMPLES TAKEN FROM TEST SECTION 2

*3.   MAXIMUM SPECIFIC GRAVITY (NO AIR VOIDS)   [__ . __ __ __]
          (AASHTO T209 OR ASTM D2041)

          BULK SPECIFIC GRAVITY (ASTM D1188)

*4.   MEAN   [__ . __ __ __]   NUMBER OF TESTS   [__ __ .]

5.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]

6.   STD. DEV.   [__ . __ __ __]

          ASPHALT CONTENT (PERCENT WEIGHT OF TOTAL MIX)
              (AASHTO T164 OR ASTM D2172)

*7.   MEAN   [__ . __ __ __]   NUMBER OF SAMPLES   [__ __ .]

8.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]

9.   STD. DEV.   [__ . __ __ __]

          PERCENT AIR VOIDS

*10.   MEAN   [__ . __ __ __]   NUMBER OF SAMPLES   [__ __ .]

11.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]

12.   STD. DEV.   [__ . __ __ __]

*13.   VOIDS IN MINERAL AGGREGATE (PERCENT)   [__ __ . __]

*14.   EFFECTIVE ASPHALT CONTENT (PERCENT)   [__ __ . __]

*15.   MARSHALL STABILITY (LBS) (AASHTO T245 OR ASTM D1559)   [__ __ __ __ .]

*16.   NUMBER OF BLOWS   [__ __]

*17.   MARSHALL FLOW (HUNDREDTHS OF AN INCH)   [__ __ __ __ .]
          (AASHTO T245 OR ASTM D1559)

*18.   HVEEM STABILITY (AASHTO T246 OR ASTM D1561)   [__ __ __ .]

*19.   HVEEM COHESIOMETER VALUE (GRAMS/25 MM OF WIDTH)   [__ __ __ __ .]
          (AASHTO T246 OR ASTM 1561)

PREPARER _____   EMPLOYER _____   DATE _____

SPS-2 CONSTRUCTION DATA SHEET 12 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO. [__ __]

*1.   LAYER NUMBER (FROM CONSTRUCTION DATA SHEET 4)   [__]

*2.   TYPE OF SAMPLES   [__]
          COMPACTED IN LABORATORY 1   TAKEN FROM TEST SECTION 2

*3.   MAXIMUM SPECIFIC GRAVITY (NO AIR VOIDS)   [__ . __ __ __]
          (AASHTO T209 OR ASTM D2041)

       BULK SPECIFIC GRAVITY (ASTM D1188)

*4.   MEAN   [__ . __ __ __]   NUMBER OF TESTS   [__ __ .]
 5.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]
 6.   STD. DEV.   [__ . __ __ __]

       ASPHALT CONTENT (PERCENT WEIGHT OF TOTAL MIX - AASHTO T164 OR ASTM D2172)

*7.   MEAN   [__ . __ __ __]   NUMBER OF SAMPLES   [__ __ .]
 8.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]
 9.   STD. DEV.   [__ . __ __ __]

       PERCENT AIR VOIDS

*10.   MEAN   [__ . __ __ __]   NUMBER OF SAMPLES   [__ __ .]
 11.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]
 12.   STD. DEV.   [__ . __ __ __]

*13.   VOIDS IN MINERAL AGGREGATE (PERCENT)   [__ __ . __]

*14.   EFFECTIVE ASPHALT CONTENT (PERCENT)   [__ __ . __]

*15.   MARSHALL STABILITY (LBS) (AASHTO T245 OR ASTM D1559)   [__ __ __ __ .]

*16.   NUMBER OF BLOWS   [__ __]

*17.   MARSHALL FLOW (HUNDREDTHS OF AN INCH)   [__ __ __ __ .]
          (AASHTO T245 OR ASTM D1559)

*18.   HVEEM STABILITY (AASHTO T246 OR ASTM D1561)   [__ __ __ .]

*19.   HVEEM COHESIOMETER VALUE (GRAMS/25 MM OF WIDTH)   [__ __ __ __ .]
          (AASHTO T246 OR ASTM 1561)

*20.   TYPE OF ANTISTRIPPING AGENT USED   [__ __]
          (SEE TYPE CODES, TABLE A.21)   OTHER (SPECIFY) _____

*21.   ANTISTRIPPING AGENT USED: LIQUID 1   SOLID 2   [__]

*22.   AMOUNT OF ANTISTRIPPING AGENT USED (PERCENT)   [__ __ . __]
          (LIQUID: enter percent of asphalt cement weight   SOLID: enter percent of aggregate weight)

PREPARER _____   EMPLOYER _____   DATE _____

SPS-2 CONSTRUCTION DATA SHEET 18 PORTLAND CEMENT CONCRETE LAYERS - MIXTURE DATA	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO. [__ __]

*1.   LAYER NUMBER (FROM CONSTRUCTION DATA SHEET 4)   [__]

          MIX DESIGN (OVEN DRIED WEIGHT - PER CUBIC YARD)

*2.   Coarse Aggregate (Pounds) . . . . [__ __ __ __ .]

*3.   Fine Aggregate (Pounds) . . . . [__ __ __ __ .]

*4.   Cement (Pounds) . . . . [__ __ __ __ .]

*5.   Water (Pounds) . . . . [__ __ __ __ .]

*6.   TYPE CEMENT USED (See Cement Type Codes, Table A.11)   [__ __]
           (If Other, Specify _____)

*7.   ALKALI CONTENT OF CEMENT (PERCENT WEIGHT OF CEMENT)   [__ __ . __]

ADMIXTURES (PERCENT BY WEIGHT OF CEMENT)

	TYPE CODE	AMOUNT
*8. ADMIXTURE #1	[__ __]	[__ __ . __]
*9. ADMIXTURE #2	[__ __]	[__ __ . __]
*10. ADMIXTURE #3	[__ __]	[__ __ . __]

              (See Cement Admixture Codes, Table A.12)
              (If Other, Specify _____)

AGGREGATE DURABILITY TEST RESULTS
        (SEE DURABILITY TEST TYPE CODES, TABLE A.13)

	TYPE OF AGGREGATE	TYPE OF TEST	RESULTS
11.	Coarse	[__ __]	[__ __ __ . __]
12.	Coarse	[__ __]	[__ __ __ . __]
13.	Coarse	[__ __]	[__ __ __ . __]
14.	Coarse and Fine	[__ __]	[__ __ __ . __]

PREPARER _____   EMPLOYER _____   DATE _____

SPS-8 CONSTRUCTION DATA SHEET 7 PLANT-MIXED ASPHALT BOUND LAYERS MIXTURE PROPERTIES	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO. [__ __]

*1.   LAYER NUMBER (FROM SHEET 4)   [__]

*2.   TYPE OF SAMPLES   [__]
        SAMPLES COMPACTED IN LABORATORY 1
        SAMPLES TAKEN FROM TEST SECTION 2

*3.   MAXIMUM SPECIFIC GRAVITY (NO AIR VOIDS)   [__ . __ __ __]
        (AASHTO T209 OR ASTM D2041)

        BULK SPECIFIC GRAVITY (ASTM D1188)

*4.   MEAN   [__ . __ __ __]   NUMBER OF TESTS   [__ __ .]

5.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]

6.   STD. DEV.   [__ . __ __ __]

        ASPHALT CONTENT (PERCENT WEIGHT OF TOTAL MIX)
            (AASHTO T164 OR ASTM D2172)

*7.   MEAN   [__ . __ __ __]   NUMBER OF SAMPLES   [__ __ .]

8.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]

9.   STD. DEV   [__ . __ __ __]

        PERCENT AIR VOIDS

*10.   MEAN   [__ . __ __ __]   NUMBER OF SAMPLES   [__ __ .]

11.   MINIMUM   [__ . __ __ __]   MAXIMUM   [__ . __ __ __]

12.   STD. DEV.   [__ . __ __ __]

*13.   VOIDS IN MINERAL AGGREGATE (PERCENT)   [__ __ . __]

*14.   EFFECTIVE ASPHALT CONTENT (PERCENT)   [__ __ . __]

*15.   MARSHALL STABILITY (LBS) (AASHTO T245 OR ASTM D1559)   [__ __ __ __ .]

*16.   NUMBER OF BLOWS   [__ __]

*17.   MARSHALL FLOW (HUNDREDTHS OF AN INCH)   [__ __ __ __ .]
        (AASHTO T245 OR ASTM D1559)

.*18. HVEEM STABILITY (AASHTO T246 OR ASTM D1561)   [__ __ __ .]

*19.   HVEEM COHESIOMETER VALUE (GRAMS/25 MM OF WIDTH)   [__ __ __ __ .]
        (AASHTO T246 OR ASTM 1561)

PREPARER _____   EMPLOYER _____   DATE _____

SPS-8 CONSTRUCTION DATA SHEET 19 PORTLAND CEMENT CONCRETE LAYERS - MIXTURE DATA	* STATE CODE [__ __] * SPS PROJECT CODE [__ __] * TEST SECTION NO. [__ __]

*1.   LAYER NUMBER (FROM CONSTRUCTION DATA SHEET 4)   [__]

   MIX DESIGN (OVEN DRIED WEIGHT - PER CUBIC YARD)

*2.   Coarse Aggregate (Pounds) . . . . [__ __ __ __ .]

*3.   Fine Aggregate (Pounds) . . . . [__ __ __ __ .]

*4.   Cement (Pounds) . . . . [__ __ __ __ .]

*5.   Water (Pounds) . . . . [__ __ __ __ .]

*6.   TYPE CEMENT USED (See Cement Type Codes, Table A.11)   [__ __]
          (If Other, Specify _____)

*7.   ALKALI CONTENT OF CEMENT (PERCENT WEIGHT OF CEMENT)   [__ __ . __]

ADMIXTURES (PERCENT BY WEIGHT OF CEMENT)

	TYPE CODE		AMOUNT
*8. ADMIXTURE #1	[__ __]		[__ __ . __]
*9. ADMIXTURE #2	[__ __]		[__ __ . __]
*10. ADMIXTURE #3	[__ __]		[__ __ . __]

          (See Cement Admixture Codes, Table A.12)
          (If Other, Specify _____)

AGGREGATE DURABILITY TEST RESULTS
      (SEE DURABILITY TEST TYPE CODES, TABLE A.13)

TYPE OF AGGREGATE	TYPE OF TEST	RESULTS
11. Coarse	[__ __]	[__ __ __ . __]
12. Coarse	[__ __]	[__ __ __ . __]
13. Coarse	[__ __]	[__ __ __ . __]
14. Coarse and Fine	[__ __]	[__ __ __ . __]

PREPARER _____   EMPLOYER _____   DATE _____