U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Pavement Performance Division
Long-Term Pavement Performance

SPECIFIC PAVEMENT STUDIES GUIDELINES FOR NOMINATION AND EVALUATION OF CANDIDATE PROJECTS FOR EXPERIMENT SPS-9A SUPERPAVE™ ASPHALT BINDER STUDY

Federal Highway Administration
Turner-Fairbank Highway Research Center
6300 Georgetown Pike
McLean, Virginia 22101

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INTRODUCTION

This document provides guidelines and information for nominating candidate projects for the Specific Pavement Studies experiment SPS-9A, "SUPERPAVE™ Asphalt Binder Study," and outlines participation requirements. Detailed project nomination forms and instructions are included in this document. Details of the experimental design and study factors are described in FHWA report entitled, "Specific Pavement Studies: Experimental Design and Research Plan for Experiment SPS-9A, SUPERPAVE™ Asphalt Binder Study," January 1995, revised September 1995.

PARTICIPATION REQUIREMENTS

Highway agencies considering participating in the SPS-9A experiment must be willing to perform the following activities:

1. Provide for the development of the asphalt mixture designs and for testing of the materials and mixtures used for the test sections in accordance with the specified procedures, e.g. SHRP performance-based specification requirements shall be used for SUPERPAVE™ mixture designs.

2. Construct the test sections described in the experimental design document referenced above. These include a test section using the highway agency's current mix design, a test section using SUPERPAVE™, and a test section using SUPERPAVE™ mixture design and an alternate binder. All test sections on a project must be constructed during the same construction season. The treatments within the length of the test sections must be applied across all lanes in the direction of travel.

3. Purchase, install and operate a traffic data collection station at or near the site to measure the traffic that passes over the test sections. As a minimum, this station must be operated to obtain continuous automatic vehicle classification and provide for four, one-week sessions of seasonal weigh-in motion each year. However, it is desirable that the station provides continuous weigh-in motion.

4. Purchase, install and operate in-pavement and air temperature monitoring apparatus at the test site.

5. Perform and/or provide for drilling, coring, sampling and testing of in-place pavement materials used in the test sections. FHWA will provide sampling plans tailored to the site plus directives and standard protocols for laboratory tests. Costs for this work must be borne by the participating agency. FHWA

Office of Technology Applications will provide assistance in the specialized testing (SUPERPAVE binder selection and mix design and mix verification).

6. Prepare plans, specifications, quantities, and all other documents necessary as a part of the agency's contracting procedures. The agency must also provide construction control, inspection and management in accordance with their standard quality control and assurance procedures.

7. Provide periodic traffic control for on-site data collection activities such as materials drilling and sampling, deflection measurements, and other monitoring activities.

8. Coordinate maintenance activities on the test sections to prevent application of premature treatments which alter the characteristics of the test sections and limits their use in the study.

9. Provide and maintain signing and marking of test sites.

10. Notify FHWA LTPP Regional Coordination Office prior to the application of overlays or other such treatments when any of the test sections reach an unsafe condition or become candidate for rehabilitation. As much lead time as possible is needed to allow recording of the terminal condition of the test sections.

If highway agency personnel desire to discuss the details of these participating requirements with FHWA, they should contact LTPP Regional offices.

PROJECT SELECTION CRITERIA

The following criteria will be considered in evaluating candidate projects for inclusion in this experiment:

1. The project may include construction for a new route or an experimental parallel roadway, realignment, reconstruction, or resurfacing of an existing asphalt concrete (AC) or portland cement concrete (PCC) pavement. The project may also include test sites for other Specific Pavement Studies experiments (SPS-1, SPS-5, or SPS-6) or test sections for General Pavement Studies (GPS) experiments. The base course may be granular or stabilized (asphalt or cement treated). Projects in which the experimental sections are constructed as added lanes are not acceptable.

2. The construction project must be of sufficient length to accommodate all of the experimental test sections. Transition zones are required between test sections. The length of these transitions depends on site conditions such as locations of cut and fill and drainage provisions, but a minimum transition length of 30 M should be provided between test sections.

3. It is desired that all of the test sections be located on subgrade soils of similar characteristics and classification. All test sections at one site must be constructed on soils classified as either fine grained or coarse grained. Variation in soil characteristics at each site should be minimized as much as possible.

4. Test sections should be located on portions of the project which are relatively straight and have a uniform vertical grade. Horizontal curves greater than 3° and vertical grades greater than 4% should be avoided.

5. It is desired that the design traffic loading level in the study lane be greater than 50,000 ESAL/year. However, a test site on the primary system with high traffic relative to the region but less than the desired rate will be considered.

6. Traffic flow over all the test sections on a project should be uniform. All sections should carry the same traffic stream. Intersections, rest stops, on-off ramps, weaving areas, quarry entrances, etc. should be avoided on and between test sections on a project.

7. It is highly desirable that the portion of the project that includes the proposed test sections be opened to traffic at the same time.

8. Ideally, all test sections should be located on shallow fills. The entire length of each test section, however, should be located completely on either a cut or a fill. Cut-fill transitions and side hill fills should be avoided.

9. Culverts, pipes and other substructures beneath the pavement should be avoided within the limits of each test section. It is recommended that subsurface structures, if required, be located in the transition zones between test sections.

10. Pavements which are either excessively under or over designed for existing site conditions should be avoided. As a general guide, the as-built structural number for flexible pavements should be between 0.8 and 1.2 times the design structural number for computed using the AASHTO Pavement Design Guide procedure. However, it is required that the asphalt concrete thickness be at least 65-mm.

11. For resurfacing projects, the type, extent, and severity of distress should be relatively uniform over the project and representative of the type of distress which occurs within the agency's jurisdiction. Test sections must be located to avoid areas of unusual distress occurrences on the project.

These criteria and considerations will help identify projects in which the relative performance of the test sections to each other is due to the experimental treatments applied to

the test section and not to other external factors such as changes in the existing pavement structure, subgrade, traffic patterns, drainage characteristics, etc. They also serve to identify projects at different locations with relatively similar types of pavements so that differences in performance from one location to another are primarily due to differences in climatic conditions and traffic levels.

It is recognized that projects containing all of the desirable characteristics are not always readily available. Each candidate site must be evaluated individually to determine the extent of compliance with the desired criteria and usefulness to the experiment. Deviation from the desired project characteristics may be necessary in order to obtain sufficient projects for the experiment. For example, projects will be considered where it is not possible to locate all of the test sections on either completely in cuts or in fills. In this case, it may be necessary to locate some test sections in cuts and others in fills. Also, on a project in rolling terrain with limited distance between intersections, it may be necessary to locate a test section over a shallow cut-fill transition (less than 3-m difference). Generally, engineering judgment will be used to evaluate the impact of such non-uniformities on test section performance.

The criteria and considerations presented in this document will be used to evaluate and rank candidate projects in cases where more than the required number of projects are available. They can also be used as a guide by an agency to identify candidate projects in their jurisdiction that are most suitable for nomination. At least one project is being sought from each state/provincial agency.

Special consideration will be given to new construction, reconstruction or rehabilitation projects that include test sites for other SPS experiments or located near test sections in the GPS experiments.

NOMINATION PROCEDURE

Agencies desiring to participate in the SPS-9A experiment should review candidate projects and evaluate them against the criteria and consideration presented in this document. A minimum of one test site is being sought in each cell to complete the experimental design shown in Table 1. Under certain conditions, additional projects might be included into one or more of the experimental design cells. Agencies should evaluate their participation in other SPS experiments if viable candidates for this study are not present or not selected in their jurisdiction. To make the complete set of SPS experiments successful, sufficient projects must be located in all experiments.

Project acceptance will be performed sequentially over time. Decisions on acceptance will be made by the "Latest Date for Approval Notification from SHRP" to be furnished by the nominating agency on the nomination forms contained in this document. Nominating agencies should set this date as late as possible to allow a review of other projects nominated for the same cell and selection of the best suited sites for this experiment. Agencies should coordinate their nomination of projects through the FHWA-LTPP Regional Coordination Office Contractor.

Table 1. Study Design - SPS-9A

Moisture		Wet > 635 mm/year of precipitation				Dry < 635 mm/year precipitation			
Average 7 Day Maximum Pavement Design Temperature		<52C	<58C	<64C	<70C	<52C	<58C	<64C	<70C
Minimum Pavement Design Temperature	> -46C								
	> -40C								
	> -34C								
	> -28C								
	> -22C								
	> -16C								
	> -10C								

NOTES:
Traffic rate should exceed 50,000 ESAL/year in study lane.
Total traffic for design (design life) is Agency choice.
The Average 7-day maximum pavement design temperature is the average of the highest daily pavement temperatures for the seven hottest consecutive days.
The minimum pavement design temperature is the coldest pavement temperature of the year.

CANDIDATE PROJECT NOMINATION AND INFORMATION FORMS

The following are instructions for completion of the SPS-9A candidate project nomination and instruction forms contained in Appendix A. Each form is referenced according to a sheet letter designation.

Sheet A. General Project Information

This sheet includes information on project location, significant dates, a general project description, and design traffic.

State. State or province in which the project is located.

SHRP Project Number. This six digit SHRP project number is assigned by the SHRP Regional Coordination Office and is used as a project reference number.

Project Location

This portion of the form provides information on the location of the candidate project. In this document, a project refers to the overall construction project. Test sections refer to 300-m portion on the project in which the experimental pavement structures are constructed and monitored over time.

Route Number. This is the number assigned to the route on which the project is located. The common number used on maps and highway signs should be provided to avoid confusion.

Route Signing. Check the appropriate designation for the route on which the project is located. If the route is other than an Interstate, U.S., State or county, please write in the appropriate designation in the space provided with a short explanation. For example, a Farm to Market signed route should be entered as: FM - Farm to Market. This designation should refer to how the route is signed and indicated on general highway maps.

Project Location. Enter the start and end mileposts or milepoints of the portion of the project which is considered suitable for construction of the test sections. The milepost or milepoint refer to reference locations signed or marked along the route in the field. If the route is signed with kilometer posts, enter the appropriate post numbers, scratch out milepost and write kilometer post on the form. The start and end station locations are not required but are requested for use in locating the portion of the project proposed for the experimental sections on the plans.

Project Location Description. This is a written description of the location of the start of the project referenced to a permanent landmark such as signed highway intersections, signed or labeled bridges, underpasses, overpasses, rest areas and railroad crossings. The objective is to provide a reference for field crews to easily locate the section in the field. Distances from a landmark located prior to the section, in the direction of travel, and a landmark located past the start of the section should be specified. For example, "The start of the project is 2.2 km north of overpass 20-45-431; the intersection with I-71 is located 3.3 km north of the start of the project" (assuming the direction of travel is northbound).

County. This is the county or governmental jurisdiction unit in which the project is located. If a project is located in more than one county, indicate the county first encountered in the direction of travel.

Highway Agency District Number. This number identifies the highway agency's district, division or region in which the project is located.

Environmental Conditions. Check the environmental conditions appropriate for the project. The conditions are found in Appendices A and B of the Experimental Design and Research Plan. If the environment at the project site deviates significantly from that, check the appropriate box on the form which best describes the actual environment and attach a sheet of paper to the form with a short explanation.

Significant Dates

Latest Date of Approval Notification from SHRP. This is the latest date that SHRP can notify the agency of acceptance of a project into the experiment. This date represents the latest date that an agency can start preparation of construction specifications and contractual documents in order to have the test sections constructed. This should be a realistic "drop dead date" that provides SHRP with the longest time possible to evaluate and coordinate other candidate projects so that the best spread and most suitable projects are included into the experiment.

Contract Letting Date. This is the actual date the contract is scheduled for letting.

Estimated Construction Start Date. This is the date on which construction on the portion of the project containing the test sections is excepted to begin. This date is important for scheduling pre-construction activities, such as section marking, deflection tests, etc.

Estimated Date Test Sections Opened to Traffic. Indicate the expected date on which the SHRP test sections will be opened to traffic.

Estimated Construction Completion Date. This is the scheduled date for completion of construction of the project on which the SHRP test sections are located. In some instances, the estimated dates for opening the test sections to traffic and for completion of construction will be the same.

Project Description

Project Type. Indicate the type of project in which the test sections are included. If the project is (1) new flexible pavement construction (reconstruction of existing, new alignment, parallel roadway) route location, (2) resurfacing of an existing flexible pavement, or (3) resurfacing of an existing rigid pavement, provide a brief description in the space provided under other.

Facility. Check the appropriate box to indicate if the roadway is divided or undivided.

Number of Lanes. Indicate the total number of traffic lanes in the direction of travel proposed for the test sections.

Design Traffic Information

Average Annual Daily Traffic. This is the estimate of the annual average daily traffic (AADT), all vehicles, both directions, used in the design of the roadway at the location of the proposed project.

Percent Heavy Trucks and Combinations. This is the ratio of trucks and heavy combinations to total vehicles (AADT), expressed to the nearest tenth of a percent. This excludes all pickups, panels, and other two axle, four tired trucks. This is for traffic in both directions.

Estimated 18K ESAL Rate in Study Lane (1,000 ESAL/Yr.). Provide the design average application rate of heavy truck loadings, in 18 Kip equivalent single axle load applications, in the study lane of the proposed project. This should be the design number of ESAL applications divided by the duration of the design period.

Total Design 18K ESAL Applications in Design Lane. Enter the design number of total 18K ESAL applications in the study lane over the design period. This should be the average or mean expected number of applications.

Design Period. Enter the length of the design period, in years, used for estimating the traffic used in the pavement design of the project.

Sheet B. Agency's Pavement Structure Design for Site

The purpose of this sheet is to provide information on the agency's typical pavement structure design for the project site. This should represent the pavement structure adjacent to the test section locations. The information requested on this form is primarily related to the AASHTO Guide for Design of Pavement Structures. If another design method was used to design the pavement structure at this site, please attach additional sheets to these forms providing information on the details of the basis of the design method used. Please provide equivalent AASHTO design inputs on this form, as appropriate, to allow comparison with other projects in the experiment.

Layer Number. This layer number convention starts with the naturally occurring subgrade as layer 1 and progresses to the pavement surface as the highest numbered layer. Each unique material layer above the subgrade is assigned a layer number and corresponding material type code, thickness and structural coefficient value. Nine or fewer layers can be identified with this form.

Layer Description Code. These codes, listed under Note 2 on the form, indicate the general name and function of each layer identified in the existing pavement structure.

Hot Mixed Asphalt Concrete (HMAC) layers of different mix characteristics than the surface layer should be identified as Code 4, Subsurface HMAC. These layers will be considered as part of the total thickness of the asphalt concrete surface layer. Where HMAC class materials are used as a base, they should be coded as a base layer (Code 05).

Many agencies cover poor subgrades with varying thicknesses of select material. Such embankments or shallow fills should be reported as a subbase layer (Code 06).

Material Type Class Code. The two digit codes identifying the type of material in each layer of the pavement structure are shown in Tables 1 through 4 of Appendix A. The intent is general identification of materials for classification and project selection purposes.

Thickness. Indicate the design thickness of each layer identified. Leave the depth of the subgrade layer blank unless the depth of the subgrade to a rigid layer is known.

Structural Coefficient. Provide the AASHTO structural layer coefficient used in the pavement design or an appropriate design estimate of this value for this type of material. If this value is modified for drainage effects, provide the modified value in this table. For the subgrade, provide a soil support value or resilient modulus value used for design purposes.

Structural Design Method. Indicate if the structural design is based on (1) 1972 AASHTO Interim Guide for Design of Pavement Structures, (2) 1986 AASHTO Guide for Design of Pavement Structures, (3) 1993 AASHTO Guide for Design of Pavement Structures, (4) an agency modification of the AASHTO Guide concepts and procedures, or (5) an other agency procedure not based on the AASHTO methodology. Please provide a brief description or title of the non-AASHTO design method on Sheet B and attach technical details of the

basis of the design method used by the agency for this project. If a modified AASHTO design approach was used, please provide information on the significant technical details of this approach.

AASHTO Reliability Factors. If either the 1986 or 1993 AASHTO Guide for Design of Pavement Structures is used for the design of the pavement structure, please provide the value of the reliability level, R, in per cent, and the overall design standard deviation, S_o, used in the design. Leave blank if not applicable.

Outside Shoulder Type. Check the appropriate box or describe the type of shoulder present on the project.

Outside Shoulder Width. Enter the appropriate width of the outside Shoulder in meters.

Subsurface Edge Drains. Check the appropriate box to indicate if subsurface edge drains are used.

Sheet C. Test Section Layout and Other Test Sections

This sheet includes details on layout of the SHRP experimental test sections, GPS and other SPS test sections near the proposed project and supplemental test sections planned for construction on the project.

Test Section Layout

This information pertains to the type and locations of the SHRP experimental test sections on the candidate project. Guidelines for test section locations are presented in the project selection criteria portion of this document.

Number of Test Sections on Cut and Fill. The as-built plan and profile sheets for the candidate project should be reviewed to determine the nature of the suitable locations for the test sections. It is preferred that all test sections be located either entirely in a fill or a cut. Potential test sections should be 300-m long to enable sampling of the subgrade and the pavement structure outside the 150-m monitoring length. If all test sections can be located completely in a cut or fill, place a check mark on the appropriate line. If it is not possible to locate all test sections entirely on fills or cuts and it is necessary to locate some test sections on cuts and some on fills within the project, indicate the number of potential locations on cuts and the number of potential locations on fills.

Shortest Transition Between Test Sections. Indicate the shortest transition required between consecutive test sections in order to locate all the test sections within the project limits.

Vertical Grade. Enter the average vertical grade slope, in percent, for the portion of project on which the test sections are located. Downgrades, in the direction of travel, should be indicated as a negative value. If the test sections are located on varying slopes, provide information under comments on deviations from desired site selection criteria on the range in differences between the vertical slope of test section sites.

Horizontal Curvature. Check the box if the test sections are located on a tangent section or indicate the horizontal degree of curvature at the test site. Provide a brief description under deviation from desired site selection criteria if some sections are located on tangents and others on horizontal curves. Provide information on any differences in cross slope of test sections due to superelevations on horizontal curves.

Comments on Deviations from Site Location Criteria. Provide brief comments describing significant deviation from the desired site location criteria presented in this document. Include in these comments items such as:

Unusual traffic patterns.
Intersections between test sections.
Substructures beneath test sections.
Test section locations at cut-fill transitions.

Variations in subgrade along project.
Short transitions between test sections (< 30 m (100 feet)).
Long transitions between test sections (> 800 m (½ mile)).
Construction constraints.

Attach additional sheets to the form if more space is needed for comments.

Other SHRP Test Sections

Project Conformity to GPS-1, GPS-2, GPS-6, or GPS-7 Criteria. If the agency's pavement design for the project conforms to the criteria for GPS-1, GPS-2, GPS-6 or GPS-7 projects, check the yes box. Consideration will be given to establishing a GPS test section on the non-SPS portion of the project.

Distance to Nearest GPS Test Section on Same Route. If an existing GPS test section is located on the same route within the state or province, indicate the distance from the candidate project to the GPS test section. If no GPS test sections are located on the same route, leave this space blank.

Test Section Number of Nearest GPS Section. Enter the SHRP test section number of the GPS test section referenced in the previous entry. Leave blank if no sections are located on the same route.

SPS Sections Located on the Project. If test sections for another SPS experiment are located on the same project, check the yes box and applicable SPS experiment number.

Supplemental Test Sections

This information pertains to supplemental test sections that the agency proposes to construct on the same project to investigate factors of direct interest to the agency. These test sections are in addition to the SHRP SPS-9A test sections.

Total Number of Supplemental Test Sections. Indicate the proposed number of additional supplemental test sections of interest by the agency.

Factors to be Investigated. For each proposed supplemental test section, indicate the experimental factors to be investigated. Attach additional sheets if more space is needed.

APPENDIX A

CANDIDATE PROJECT NOMINATION AND INFORMATION FORMS FOR EXPERIMENT SPS-9A SUPERPAVE™ ASPHALT BINDER STUDY

SHEET A. SPS-9A CANDIDATE PROJECT NOMINATION AND INFORMATION

STATE_____ SHRP SECTION NO._____

GENERAL PROJECT INFORMATION

PROJECT LOCATION

ROUTE NUMBER _____

ROUTE SIGNING [ ] Interstate [ ] U.S. [ ] State [ ] County

Other_____

PROJECT LOCATION Start Milepost_____ End Milepost_____

Start Station _____ End Station _____

DIRECTION OF TRAVEL [ ] North B. [ ] South B. [ ] West B. [ ] East B.

PROJECT LOCATION DESCRIPTION_____

_____

_____

COUNTY _____

HIGHWAY AGENCY DISTRICT NUMBER _____

ENVIRONMENTAL CONDITIONS

AVERAGE 7-DAY MAXIMUM PAVEMENT DESIGN TEMPERATURE	MINIMUM PAVEMENT DESIGN TEMPERATURE	MOISTURE (Annual Precipitation)
< 52C [ ]	> -46C [ ]	
< 58C [ ]	> -40C [ ]	< 625 mm [ ]
< 64C [ ]	> -34C [ ]	
< 70C [ ]	> -28C [ ]	> 625 mm [ ]
	> -22C [ ]	
	> -16C [ ]	
	> -10C [ ]	

SIGNIFICANT DATES

LATEST DATE OF APPROVAL NOTIFICATION FROM FHWA LTPP _____

CONTRACT LETTING DATE _____

ESTIMATED CONSTRUCTION START DATE _____

ESTIMATED DATE TEST SECTIONS OPENED TO TRAFFIC _____

ESTIMATED CONSTRUCTION COMPLETION DATE _____

SHEET A. SPS-9 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM (Continued)

PROJECT DESCRIPTION

PROJECT TYPE [ ] New Route [ ] Resurfacing Flexible [ ] Resurfacing Rigid

Other_____

_____

_____

FACILITY [ ] Divided [ ] Undivided NUMBER OF LANES (One Way)_____

DESIGN TRAFFIC DATA

ANNUAL AVERAGE DAILY TRAFFIC (TWO DIRECTIONS) _____

% HEAVY TRUCKS AND COMBINATIONS (OF AADT) _____

EST. 18K ESAL RATE IN STUDY LANE (1,000 ESAL/YR) _____

TOTAL DESIGN 18K ESAL APPLICATIONS IN DESIGN LANE _____

DESIGN PERIOD (Years) _____

SHEET B. SPS-9 CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE_____ SHRP SECTION NO._____

AGENCY'S PAVEMENT STRUCTURE DESIGN FOR SITE

LAYER[1] NO.	LAYER[2] DESCRIPTION CODE	MATERIAL TYPE[3] CLASS CODE	THICKNESS[4] (mm)	STRUCTURAL[5] COEFFICIENT
1	SUBGRADE (7)	__ __	__ __ __	_____
2	__ __	__ __	__ __.__	0.__ __
3	__ __	__ __	__ __.__	0.__ __
4	__ __	__ __	__ __.__	0.__ __
5	__ __	__ __	__ __.__	0.__ __
6	__ __	__ __	__ __.__	0.__ __
7	__ __	__ __	__ __.__	0.__ __
8	__ __	__ __	__ __.__	0.__ __
9	__ __	__ __	__ __.__	0.__ __

STRUCTURAL DESIGN METHOD

[ ] 1972 AASHTO [ ] 1986 AASHTO [ ] 1993 AASHTO [ ] Modified AASHTO

Other_____

AASHTO DESIGN RELIABILITY FACTORS R%_____ S_o_____

OUTSIDE SHOULDER TYPE

[ ] Turf [ ] Granular [ ] Asphalt Concrete [ ] Surface Treatment

[ ] PCC [ ] Curb and Gutter Other_____

OUTSIDE SHOULDER WIDTH (meters) ___

SUBSURFACE EDGE DRAINS [ ] Yes [ ] No

NOTES

1. Layer 1 is the natural occurring subgrade soil. The pavement surface will have the largest assigned layer number.
2. Layer description codes:

Surface Layer:	03	Base Layer:	05	Subgrade:	07
Subsurface HMAC:	04	Subbase Layer:	06	Embankment (Fill):	11

3. Refer to Tables A-1 through A-4 for material class codes.
4. If subgrade depth to a rigid layer is known, enter this depth for subgrade thickness, otherwise leave subgrade layer thickness blank.
5. Enter AASHTO structural layer coefficient value, as appropriately modified, used in pavement design or typical coefficient used by agency for this material. For the subgrade, enter either AASHTO soil support value or resilient modulus value (MPa) used in design.

SHEET C. SPS-9A CANDIDATE PROJECT NOMINATION AND INFORMATION FORM

STATE_____ SHRP SECTION NO._____

TEST SECTION LAYOUT

NUMBER OF TEST SECTIONS ENTIRELY ON: FILL_____ CUT _____
SHORTEST TRANSITION BETWEEN CONSECUTIVE TEST SECTIONS (meters) _____
VERTICAL GRADE (Avg %) (+ upgrade; - downgrade) ___
HORIZONTAL CURVATURE (Degrees)___ [ ] Tangent
COMMENTS ON DEVIATIONS FROM DESIRED SITE LOCATION CRITERIA_____

_____

_____

_____

_____

_____

OTHER SHRP TEST SECTIONS

DOES AGENCY DESIGN CONFORM TO GPS-1, GPS-2, GPS-6 OR GPS-7
PROJECT CRITERIA? [ ] YES [ ] NO
DISTANCE TO NEAREST GPS TEST SECTION ON SAME ROUTE (km) _____
TEST SECTION NUMBER OF NEAREST GPS SECTION ___
ARE OTHER SPS SECTIONS LOCATED ON SAME PROJECT? [ ] YES [ ] NO
IF YES: [ ] SPS-1 [ ] SPS-5 [ ] SPS-6 [ ] OTHER

SUPPLEMENTAL TEST SECTIONS

IF SUPPLEMENTAL EXPERIMENTAL TEST SECTIONS ARE PROPOSED, COMPLETE THE FOLLOWING:
TOTAL NUMBER OF SUPPLEMENTAL TEST SECTIONS ___
FACTORS TO BE INVESTIGATED _____

_____

_____

_____

_____

_____

Table A-1 - Pavement Surface Material Type Classification Codes

Material Type	Code
Hot Mixed, Hot Laid Asphalt Concrete, Dense Graded	01
Hot Mixed, Hot Laid Asphalt Concrete, Open Graded (Porous Friction Course)	02
Sand Asphalt	03
Portland Cement Concrete (JPCP)	04
Portland Cement Concrete (JRCP)	05
Portland Cement Concrete (CRCP)	06
Portland Cement Concrete (Prestressed)	07
Portland Cement Concrete (Fiber Reinforced)	08
Plant Mix (Emulsified Asphalt) Material, Cold Laid	09
Plant Mix (Cutback Asphalt) Material, Cold Laid	10
Single Surface Treatment	11
Double Surface Treatment	12
Recycled Asphalt Concrete	
Hot, Central Plant Mix	13
Cold Laid Central Plant Mix	14
Cold Laid Mixed-In-Place	15
Heater Scarification/Recompaction	16
Recycled Portland Cement Concrete	
JPCP	17
JRCP	18
CRCP	19
Other	20

Table A-2 - Base and Subbase Material Type Classification Codes

	Code
No Base (Pavement Placed Directly on Subgrade)	21
Gravel (Uncrushed)	22
Crushed Stone, Gravel or Slag	23
Sand	24
Soil-Aggregate Mixture (Predominantly Fine-Grained Soil)	25
Soil-Aggregate Mixture (Predominantly Coarse-Grained Soil)	26
Soil Cement	27
Asphalt Bound Base or Subbase Materials	
Dense Graded, Hot Laid, Central Plant Mix	28
Dense Graded, Cold Laid, Central Plant Mix	29
Dense Graded, Cold Laid, Mixed In-Place	30
Open Graded, Hot Laid, Central Plant Mix	31
Open Graded, Cold Laid, Central Plant Mix	32
Open Graded, Cold Laid, Mixed In-Place	33
Recycled Asphalt Concrete, Plant Mix, Hot Laid	34
Recycled Asphalt Concrete, Plant Mix, Cold Laid	35
Recycled Asphalt Concrete, Mixed In-Place	36
Sand Asphalt	46
Cement-Aggregate Mixture	37
Lean Concrete (<3 sacks cement/cy)	38
Recycled Portland Cement Concrete	39
Sand-Shell Mixture	40
Limerock, Caliche (Soft Carbonate Rock)	41
Lime-Treated Subgrade Soil	42
Cement-Treated Subgrade Soil	43
Pozzolanic-Aggregate Mixture	44
Cracked and Seated PCC Layer	45
Other	49

Table A-3 - Subgrade Soil Description Codes

Soil Description	Code
Fine-Grained Subgrade Soils	
Clay (Liquid Limit >50)	51
Sandy Clay	52
Silty Clay	53
Silt	54
Sandy Silt	55
Clayey Silt	56
Coarse-Grained Subgrade Soils	
Sand	57
Poorly Graded Sand	58
Silty Sand	59
Clayey Sand	60
Gravel	61
Poorly Graded Gravel	62
Clayey Gravel	63
Shale	64
Rock	65

Table A-4 - Material Type Codes for Thin Seals and Interlayers

	Code
Chip Seal Coat	71
Slurry Seal Coat	72
Fog Seal Coat	73
Woven Geotextile	74
Nonwoven Geotextile	75
Stress Absorbing Membrane Interlayer	77
Dense Graded Asphalt Concrete Interlayer	78
Aggregate Interlayer	79
Open Graded Asphalt Concrete Interlayer	80
Chip Seal With Modified Binder (Does Not Include Crumb Rubber)	81
Sand Seal	82
Asphalt-Rubber Seal Coat (Stress Absorbing Membrane)	83
Sand Asphalt	84
Other	85