

Project 0-6658: Task 4 - Data Collection Plans
LIST OF FIELD TESTS (MIN 2NO.× 500FT) TEST SECTIONS PER HWY SECTION)

#	Pavement Distress/ Characteristic	#	Test Type/Equipment and Responsibility for Collection	Target No. of Sections to be Tested Per Year	Proposed Frequency Per Section Per Year	Proposed Time of the Year	Data to be Collected	Test Specification	Analysis- Output Data & Parameters to Report (Raw Data Files will also be Provided to TxDOT)	Reporting Format (ACCESS??)	Where Required
						(S=summer; W=winter; Yr=year)					
1	Surface profiles, roughness/smoothness, ride quality (IRI)	a.	Profiler (TTI/UTEP)	100	2	S and W	Delta for measurement, elevation (left & right), & leave out	TxDOT protocol	Yr & date, IRI as function of section length, wheel path, Avg. IRI, COV - Proval software will be used to analyze the data	Table, Graph	All ME models & Routine Performance Evaluation
2	Rutting (Rut depth)	a.	Straightedge (TTI & UTEP)	50	2	S and W	Rut depth	Straightedge (& trenching w	Yr & date, rut depth as function of section length, wheel path, Avg. rut depth, COV	Table, Graph	All ME models & Routine Performance Evaluation
3	Cracking	a.	Walking surveys (TTI/UTEP)	50	2	W and S	Lane width, No. of cracks, %alligator, %block, longitudinal, transverse, etc.	TxDOT protocol	Yr & date, crack type, number of cracks, %age cracking, COV		All ME models & Routine Performance Evaluation
4	Surface deflections, strength/stiffness, in-situ modulus, in-situ density, etc	a.	FWD (TxDOT)	50	2	S and W	50ft. Spacings with multiple loads for a good loadzone collection scheme	TxDOT	Yr & date, PVMNT & air temp., FWD modulus, deflections, COV - Modulus 6.0 will be used to analyze the FWD data	Table, Graph	FPS, TxACOL, TexM-E, & Routine Performance Evaluation
		b.	PSPA/DSPA (UTEP)	50	1	Yr1=S, Yr3=W, Yr3=S		Current Texas practice	Yr & date, temperature (PVMNT & air), avg. modulus, COV	Table, Graph	
		c.	DCP (TTI/UTEP)	50	1	Yr1=S, Yr3=W, Yr3=S		Current Texas practice	Yr & date, avg. modulus, COV	Table, Graph	
5	Subsurface defects & moisture	a.	GPR (TTI),	100	4	Once at start/selection of project (and thereafter whenever needed for					performance evaluation
6	Coring and auger sampling of HMA, bases, and subgrade soil???	a.	TTI auger and coring equipment	25	1	Once at start/selection of project (and thereafter repeated whenever needed for forensics)	OBTAIN FROM PMIS DATABASE				Routine Performance Evaluation
		b.	UTEP (West Texas)								
7	Texture & skid resistance (skid number)	a.	TxDOT (particularly for overlay projects)	50	1	End of Summer	Skid number (SN)	TXDOT-PMIS	TxDOT-PMIS	Table, Graph	Routine Performance Evaluation
8	Pavement layer thickness estimation	a.	GPR (TTI)	100	4	Once at start/selection of project Seems to be some overlap with #4.	Too difficult to obtain on adequate basis		N/A	N/A	All ME models
		b.	Coring	25	1						
		c.	Bore holes or probes	25	1						
		e.	DCP	50	4		Utilization of other methods is preferred				
9	Visual photographs of pavement surface & distresses	a.	GPR video	100	1	Same as Item#5		TxDOT protocol	Pictures	Pictures	Routine Performance Evaluation
		b.	Digital camera (TTI/UTEP)		2	Same as Items# 2 and 3					
10	Other distresses	a.	%patching	50	2	Same as Items 2 & 3		TxDOT or SHRP protocol	Yr & date, temperature (PVMNT & air), avg. values, COV	Table, Graph	Routine Performance Evaluation
		b.	Raveling/aggregate loss	50	2						
		c.	Flushing/bleeding	50	2						
		d.	Aggregate embedment	50	2						
		e.	Other failures								
11	Load transfer efficiency (LTE)	a.	FWD	25	1	Once at start/selection of project	LTE	TxDOT	LTE values at specific locations	Table	TxACOL

Note:
For the distress/characteristic items listed above, the following information will also be collected:

Highway name
Date open to traffic
Latitude and longitudinal location (both start and end points)
Lane direction
Location (out side wheel path, inside wheel path, shoulder, etc)
Layer ID